Florida International University

CATALOG

1988-1989

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Florida International University
The State University of Florida at Miami

1988-1989 Catalog
Miami, Florida

Member of the State University System

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Editorial Preparation by FIU Registrar Support Services.
Design and Graphic Preparation, University Relations and Development.

Florida International University believes in equal opportunity practices which conform to all laws against discrimination and is committed to nondiscrimination with respect to race, color, creed, age, handicap, sex, marital status, or national origin. Additionally, the University is committed to the principle of taking the positive steps necessary, to achieve the equalization of educational and employment opportunities.

Note: The programs, policies, requirements, and regulations published in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes in programs, policies, requirements, and regulations may be made without advance notice.

The ultimate responsibility for knowing degree requirements and the requirements imposed upon students by State law rests with the students.

Fees given in this catalog are tentative pending legislative action.

ACADEMIC CALENDAR 1988-1989[1]
FLORIDA INTERNATIONAL UNIVERSITY

FALL SEMESTER 1988

July 25	Short Term Tuition Loan and Tuition Waiver Applications available to students who plan to register for Fall Term.
April 1	Last day for priority consideration for Fall Term admission applicants. Later applications will be considered on a space-available basis.
July 1	Last day to receive all required supporting documents for admission for Fall Term.
July 25-29	Official Registration Week (Degree-Seeking Students) only by appointment time and day for Fall Term.
August 1-5	Open Registration for Fall Term.
August 4	Last day to apply for Short Term Tuition Loans for students already registered for Fall Term. • Last day to apply for Tuition Waivers for students already registered for Fall term.
August 9	Last day to pay tuition and fees to retain registered courses by 6:30 p.m. for Fall Term. • Last day for Financial Aid recipients to validate class schedules to retain registered courses for Fall Term. • Last day to sign Short Term Tuition Loan promissory notes and validate class schedules for students already registered for Fall term. • Last day for Tuition Waiver applicants to validate class schedules and pay in-state portion of tuition and all required fees to retain registered courses for Fall Term.
August 18	Housing Check-in 9 a.m. to 8 p.m. Short Term Tuition Loan and Tuition Waiver Applications available to students who plan to register on Registration Day.
August 22	Registration Day (10 a.m. to 7:30 p.m.).
August 23	Last day to apply for Short Term Tuition Loans for students who registered on or after Registration Day. • Last day to apply for Tuition Waivers for students who registered on or after Registration Day.
August 24	Classes Begin. • Registration for State Employees using fee waivers.
September 2	Last day to complete Late Registration by 3 p.m. • Drop/Add Period ends at 3 p.m. • Last day to drop courses or withdraw from the University without incurring a financial liability by 3 p.m.
September 5	Labor Day Holiday (University closed).
September 6	• Last day to pay tuition and fees to avoid cancellation of enrollment by 6:30 p.m. • Last Day for Financial Aid recipients to validate class schedules to retain registered courses. Last day for Financial Aid recipients applicants to validate class schedules to retain registered courses on Registration Day. • Last day to sign Short Term Tuition Loan promissory notes for students who registered on Registration day. • Last day for Tuition Waiver applicants to validate class schedules and pay in-state portion of tuition and all required fees to retain registered courses on Registration Day.
September 6-9	Students must sign approved Tuition Waivers for Fall Term.
September 23	Last day to apply for Fall Term graduation by 3 p.m. • Last day to withdraw from the University with a 25% refund of tuition less bonding fees by 3 p.m.
October 3	Last day for priority consideration for Spring Term admission applicants. Later applications will be considered on a space-available basis.
November 1	Last day to receive all required supporting documents for admission for Spring Term.
October 21	Last day to drop a course with a DR grade by 3 p.m. • Last day to withdraw from the University with a WI grade by 3 p.m.
November 11	Veterans' Day Holiday (University closed).
November 14	Short Term Tuition Loan and Tuition Waiver Applications available to students who plan to register for Spring Term.
November 24-25	Thanksgiving Holiday (University closed).
Nov 28-Dec 2	Official Registration Week (Degree-Seeking Students) only by appointment time and day for Spring Term.
December 5-9	Open Registration for Spring Term.
December 9	Classes End.
December 12-16	Official Examination Period.
December 13	Last day to pay tuition and fees to retain registered courses by 6:30 p.m. for Spring Term. • Last day for Financial Aid recipients to validate class schedules to retain registered courses for Spring Term.
December 22	Grades Mailed to Students.

SPRING SEMESTER 1989

October 3	Last day for priority consideration for Spring Term admission applicants. Later applications will be considered on a space-available basis.
November 1	Last day to receive all required supporting documents for admission for Spring Term.
November 14	Short Term Tuition Loan and Tuition Waiver Applications available to students who plan to register for Spring Term.
Nov 28-Dec 2	Official Registration Week (Degree-Seeking Students) only by appointment time and day for Spring Term.
November 30	Last day to receive all required supporting documents for admission for Spring Term.
December 5-9	Open Registration for Spring Term.
December 13	Last day to pay tuition and fees to retain registered courses by 6:30 p.m. for Spring Term. • Last day for Financial Aid recipients to validate class schedules to retain registered courses for Spring Term. • Last day to sign Short Term Tuition Loan promissory notes and validate class schedules for students already registered for Spring Term. • Last day for Tuition Waiver applicants to validate class schedules and pay in-state portion of tuition and all required fees to retain registered courses for Spring Term.

December 22	Last day to apply for Short Term Tuition Loans for students already registered for Spring Term. • Last day to apply for Tuition Waivers for students already registered for Spring Term.
January 2	Short Term Tuition Loan and Tuition Waiver Applications available to students who plan to register on Registration Day.
January 3	Registration Day (10 a.m. to 7:30 p.m.) for Spring Term. • Financial Aid Applications available for 1989-1990. • Housing Check-in 9 a.m. to 8 p.m.
January 5	Classes Begin. •Registration for State Employees using fee waivers.
January 10	Last day to apply for Short Term Tuition Loans for students who registered on or after Registration Day. • Last day to apply for Tuition Waivers for students who registered on or after Registration Day.
January 13	Last day to complete Late Registration by 3 p.m. • Drop/Add Period ends at 3 p.m. • Last day to drop courses or withdraw from the University without incurring a financial liability by 3 p.m.
January 16	Martin Luther King Holiday (University Closed).
January 17	Last day to pay tuition and fees to avoid cancellation of enrollment by 6:30 p.m. • Last day for Financial Aid recipients applicants to validate class schedules to retain registered courses on Registration Day. • Last day to sign Short Term Tuition Loan promissory notes and validate class schedules for students who registered on Registration day. • Last day for Tuition Waiver applicants to validate class schedules and pay in-state portion of tuition and all required fees to retain registered courses on Registration Day.
January 24-29	Students must sign approved Tuition Waivers for Spring Term.
February 3	Last day to apply for Spring Term graduation by 3 p.m. • Last day to withdraw from the University with a 25% refund of tuition less bonding fees by 3 p.m.
March 1	Last day for priority consideration for Summer Term applicants. Later applications will be considered on a space-available basis.
March 3	Last day to drop a course with a DR grade by 3 p.m. • Last day to withdraw from the University with a WI grade.
March 6-11	Spring Break.
April 1	Deadline for 1989-1990 Financial Aid Applications for priority consideration.
April 3-7	Official Registration Week (Degree-Seeking Students) only by appointment time and day only, for the Summer Terms (Complete Summer Term, Summer Term A, and Summer Term B).
April 10-14	Open Registration for the Summer Terms
April 18	Last day to pay tuition and fees to retain registered courses by 6:30 p.m. for the Summer Terms. • Last Day for Financial Aid recipients to validate class schedules to retain registered courses for the Summer Terms. • Deadline date for 1989-1990 Financial Aid Application for priority consideration.
April 21	Classes End.
April 24-28	Official Examination Period.
April 29	Commencement Exercises.
May 4	Grades Mailed to Students.

COMPLETE SUMMER SEMESTER 1989

March 1	Last day for priority consideration for Summer Term applicants. Later applications will be considered on a space-available basis.
April 3	Last day for receipt of Admission Application, including all appropriate credentials, to assure consideration for Admission for Fall Term 1989. • Short Term Tuition Loan and Tuition Waiver Applications available to students who plan to register for Summer Terms.
April 3-7	Official Registration Week (Degree-Seeking Students) only by appointment time and day only for the Summer Terms .
April 10-14	Open Registration for the Summer Terms.
April 11	Last day to apply for Short Term Tuition Loans for students already registered for Summer Terms. • Last day to apply for Tuition Waivers for students already registered for Summer Terms.
April 18	Last day to pay tuition and fees to retain registered courses by 6:30 p.m. for the Summer Terms. • Last Day for Financial Aid recipients to validate class schedules to retain registered courses for the Summer Terms. • Deadline date for 1989-1990 Financial Aid Application for priority consideration. • Last day for Financial Aid recipients to validate class schedules to retain registered courses for Summer Terms. • Last day for Tuition Waiver applicants to validate class schedules and pay in-state portion of tuition and all required fees to retain registered courses for Summer Terms.
May 4	Short Term Tuition Loan and Tuition Waiver Applications available to students who plan to register on Registration Day.
May 5	Housing Check-in 9 a.m. to 8 p.m.
May 8	Registration Day (10 a.m. to 7:30 p.m.) for the Summer Terms.
May 10	Classes Begin. • Registration for State Employees using fee waivers. • Last day to apply for Short Term Tuition Loans for students who registered on or after Registration Day. • Last day to apply for Tuition Waivers for students who registered on or after Registration Day.
May 19	Last day to complete Late Registration by 3 p.m. • Drop/Add Period ends at 3 p.m. • Last day to drop courses or withdraw from the University without incurring a financial liability by 3 p.m.
May 23	Last day to pay tuition and fees to avoid cancellation of enrollment by 6:30 p.m. • Last Day for Financial Aid recipients to validate class schedules to retain registered courses.

	• Last day for Financial Aid recipients to validate class schedules to retain registered courses on Registration Day.
	• Last day to sign Short Term Tuition Loan promissory notes and validate class schedules for students who registered on Registration day.
	• Last day for Tuition Waiver applicants to validate class schedules and pay in-state portion of tuition and all required fees to retain registered courses on Registration Day.
May 23-26	Students must sign approved Tuition Waivers for Summer Terms.
May 29	Memorial Day Holiday (University closed).
June 9	Last day to apply for Summer Term Graduation by 3 p.m.
	• Last day to withdraw from the University with a 25% refund of tuition less bonding fees by 3 p.m.
July 7	Last day to drop a course with a DR grade by 3 p.m.
	• Last day to withdraw from the University with a WI grade by 3 p.m.
July 4	Independence Day Holiday (University closed).
July 24-28	Official Registration Week (Degree-Seeking Students) only by appointment time and day only for Fall Term.
July 31 -Aug 4	Open Registration for Fall Term.
August 8	Last day to pay tuition and fees to avoid cancellation of enrollment by 6:30 p.m.
	• Last day for Financial Aid recipients to validate class schedules to retain registered courses.
August 11	Classes End.
August 17	Grades Mailed to Students.

SUMMER TERM A

May 10	Classes Begin.
May 19	Last day to complete Late Registration by 3 p.m.
	• Drop/Add Period ends at 3 p.m.
	• Last day to drop courses or withdraw from the University without incurring a financial liability by 3 p.m.
May 23	Last day to pay tuition and fees to avoid cancellation of enrollment by 6:30 p.m.
	• Last Day for Financial Aid recipients to validate class schedules to retain registered courses.
May 29	Memorial Day Holiday (University closed).
June 9	Last day to apply for Summer Term Graduation by 3 p.m.
	• Last day to drop a course with a DR grade by 3 p.m.
	• Last day to withdraw from the University with a WI grade by 3 p.m.
	• Last day to withdraw from the University with a 25% refund of tuition less bonding fees by 3 p.m.
June 23	Classes End.[2]
August 17	Grades Mailed to Students.

SUMMER TERM B

June 9	Last day to apply for Summer Term graduation by 3 p.m.
June 26	Registration Day.
June 28	Classes Begin.
	• Registration for State Employees using fee waivers.
July 4	Independence Day Holiday (University closed).
July 7	Last day to complete Late Registration by 3 p.m.
	• Drop/Add Period ends at 3 p.m.
	• Last day to drop courses or withdraw from the University without incurring a financial liability by 3 p.m.
July 11	Last day to pay tuition and fees to avoid cancellation of enrollment by 6:30 p.m.
	• Last Day for Financial Aid recipients to validate class schedules to retain registered courses.
July 28	Last day to drop a course with a DR grade by 3 p.m.
	• Last day to withdraw from the University with a WI grade by 3 p.m.
	• Last day to withdraw from the University with a 25% refund of tuition less bonding fees by 3 p.m.
August 11	Classes End.
August 17	Grades Mailed to Students.

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[1] Calendar dates are subject to change. Please contact appropriate offices for verification and updates.

[2] Grades will not be posted on transcripts, and graduation will not be processed until the end of the Complete Summer Term, August 11.

General Information

General Information

State Board of Education

Bob Martinez	*Governor*
Jim Smith	*Secretary of State*
Bob Butterworth	*Attorney General*
Gerald Lewis	*Comptroller*
Doyle Conner	*Commissioner of Agriculture*
Betty Castor	*Commissioner of Education*
William D. Gunter, Jr.	*Treasurer*

Florida Board of Regents

Hon. Joan D. Ruffier	*Chairperson, Orlando*
Hon. DuBose Ausley	*Tallahassee*
Hon. J. Clint Brown	*Tampa*
Hon. J. Hyatt Brown	*Daytona Beach*
Hon. Cecilia Bryant	*Jacksonville*
Hon. Betty Castor	*Commissioner of Education*
Hon. Alec P. Courtelis	*Miami*
Hon. Robert A. Dressler	*Fort Lauderdale*
Hon. Charles B. Edwards, Sr.	*Fort Myers*
Hon. Pat N. Groner	*Pensacola*
Hon. Cecil B. Keene	*St. Petersburg*
Hon. Raul Masvidal	*Miami*
Hon. Edwin A. Scales III	*Student Regent*
Hon. Charles B. Reed	*Chancellor, State University System*

University Officials

Modesto A. Maidique	*President*
Judith H. Stiehm	*Provost and Vice President for Academic Affairs*
Ronald G. Arrowsmith	*Vice President for Administrative Affairs*
Richard J. Correnti	*Vice President for Student Affairs*
Paul D. Gallagher	*Vice President for Business and Finance*
Adam W. Herbert	*Vice President for North Miami Campus*
Walter L. Strong	*Vice President for University Relations and Development*

History

Florida International University, a member institution of the State University System of Florida, was established by the State Legislature on June 22, 1965. Classes began at University Park on September 19, 1972, with 6,000 students enrolled in upper-division undergraduate and graduate programs. In 1981 the University added lower-division classes for freshmen and sophomores, expanding its enrollment capacity. In 1984, the University received authority to begin offering degree programs at the doctoral level; these programs received Level IV accreditation from the Southern Association of Colleges and Schools (SACS) in 1986.

The Florida Board of Regents appointed Charles E. Perry as the first president of FIU in July of 1969. He was succeeded in June, 1976 by President Harold Brian Crosby. Gregory Baker Wolfe was named the third president in February, 1979. Modesto A. (Mitch) Maidique was named the fourth President of Florida International University on August 27, 1986. Maidique received his Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology and was associated with MIT, Harvard, and Stanford for 20 years.

Goals

Florida International University (FIU), a comprehensive, multi-campus urban research institution is committed to providing both excellence and access to all qualified students desiring to pursue higher education. FIU offers a comprehensive undergraduate liberal arts education structured around a rigorous core curriculum. The University also offers a number of highly-regarded master's and doctoral programs in six of its colleges and schools.

The University's academic programs are designed to achieve four major goals:

1. To provide a excellent university education for all qualified students, challenging and stimulating them at the lower-division level and preparing them to choose a major field in the upper division, leading to selection of a profession or occupation or further study at the graduate level. FIU encourages its graduates, as educated citizens, to pursue lifetime opportunities to contribute to the development of their community's cultural, aesthetic, and economic environments through participation.
2. To generate new knowledge through a vigorous and ambitious commitment to research in all academic disciplines and to encourage creativity by fostering an atmosphere conducive to the expression of ideas, artistic development, and communication with the external community.
3. To serve the university's external community, with special attention to Dade, Broward, and Monroe counties, enhancing South Florida's capacity to meet its cultural, economic, social and urban challenges as we move into the 21st century.
4. To foster greater global understanding as a major center of international education for the people of the Americas and the international community. Campuses

The University operates two campuses in Dade County and two educational centers in Ft. Lauderdale. The main campus is located at University Park in west Dade County, approximately 10 miles west of downtown Miami. The North Miami Campus is adjacent to Biscayne Bay, at Northwest Biscayne Boulevard and 151st Street. Broward County area is served cooperatively by the FAU/FIU Center, located on the campus of Broward Community College in Davie and at University Tower in Fort Lauderdale.

University Park Campus

University Park occupies 344 acres in the western suburbs of Dade County, not far from Miami International Airport. The campus has eight major buildings, a residential apartment complex for 800 students, and a new athletic arena. The campus development plan envisions additional facilities to accommodate anticipated growth, including construction of an $10 million engineering building in 1988-89 and an $11 million physical science building shortly thereafter.

North Miami Campus

The North Miami Campus encompasses 200 acres on Biscayne Bay, including a large natural cypress preserve. Campus facilities include six campus buildings, an Olympic-type aquatic center, apartment-style housing for 552 students, and a new library, with seating for 500 and a capacity of 232,000 volumes. This facility, which was opened in January 1988, also contains classrooms, a modern foreign language laboratory and instructional media laboratory.

FIU Broward

In collaboration with Florida Atlantic University and Broward Community College, FIU faculty and administrators are working to provide a comprehensive urban university presence in Broward County. Both FIU Broward facilities are staffed to provide full student services including admissions, registration, financial aid, academic advising, student activities, and career counseling.

The University offers full degree programs and a variety of supplementary courses at two major academic centers in Broward County.

The FIU Broward Center, located in western Fort Lauderdale emphasizes undergraduate programs in cooperation with Broward Community College. Under the 2+2 program, students enroll in BCC for the first two years of university study and FIU provides the final two years and awards the bachelor's degree to graduates. The University Tower, in downtown Fort Lauderdale, serves as the administrative headquarters for the FIU Broward programs and as a major instructional facility. The University Tower is primarily utilized to provide graduate programs, research and services to residents and businesses and service industries in the area.

General Academic Information

Florida International University offers a variety of academic programs and courses at the bachelor's, master's, and doctorate degree levels which are designed to respond to the changing needs of the growing metropolitan areas of South Florida. Degree programs are offered in the College of Arts and Sciences, College of Business Administration, College of Education, College of Engineering and Applied Sciences, School of Health Sciences, School of Hospitality Management, School of Nursing, and School of Public Affairs and Services. Graduate study at the doctoral level is available in Computer Science, Education, Psychology, and Public Administration.

Accreditation and Memberships

All academic programs of the University are approved by the State Board of Education and the Florida Board of Regents. The University is an accredited member of the Southern Association of Colleges and Schools. The professional programs of the respective schools of the University are accredited or approved by the appropriate professional associations, or are pursuing full professional accreditation or approval.

The University is also an affiliate member of the Association of Upper Level Colleges and Universities, the American Association of State Colleges and Universities, the Florida Association of Colleges and Universities, the American Association of Community and Junior Colleges, a Charter Member of the Southeast Florida Educational Consortium, and numerous other educational and professional associations.

The following agencies have accredited professional programs at the University:

Accreditation Board for Engineering and Technology
American Assembly of Collegiate Schools of Business American
American Chemical Society
American Council of Construction Education
Council of Graduate Schools in the United States
Florida Consortium on Multilingual and Multicultural Education
National Accreditation Agency for Clinical Lab Sciences
National Association of Colleges of Nursing
National Association of Schools of Public Affairs
National League of Nursing
The Accreditation Board of Engineering and Technology
The American Dietetics Association
The American Medical Association
The American Medical Records Association
The American Occupational Therapy Association
The American Physical Therapy Association
The American Society of Clinical Pathologists
The Council on Social Work Education

Southeast Florida Educational Consortium

Florida International University, Broward Community College, and Miami-Dade Community College are charter members of the Southeast Florida Educational Consortium, which was established in 1977. This organization links the member institutions in planning, maintaining, and evaluating cooperative efforts in academic programs, student services, and administrative support services.

The overall objectives of the Consortium are to:

1. Increase and improve educational opportunities.
2. Ensure smooth transition from the community college to the university.
3. Provide easy access to institutional services for students and faculty.
4. Effectively utilize human and fiscal resources.

Descriptions of specific cooperative arrangements between the Consortium member campuses and student and faculty procedures are given in the appropriate sections of this Catalog.

Academic Programs

College of Arts and Sciences

Bachelor of Arts in
Chemistry
Economics
English
Environmental Studies
French
Geology
German
History
Humanities
International Relations
Italian
Liberal Studies
Philosophy
Political Science
Portuguese
Psychology
Religious Studies
Sociology/Anthropology
Spanish

Bachelor of Science in
Biological Science
Chemistry
Communication
Computer Science
Environmental Studies
Geology
Mathematical Sciences
Mathematics
Physics
Statistics

Bachelor of Music
Bachelor of Fine Arts in
Art
Theatre

Master of Arts in
Economics
Hispanic Studies
History (jointly with FAU)
International Studies
Linguistics

Master of Science in
Biology
Chemistry
Computer Science
Environmental and Urban Systems (jointly with the College of Engineering and Applied Sciences)
Geology
Mass Communication
Mathematical Sciences
Psychology
Physics

Doctor of Philosophy in
Computer Science
Economics
Psychology

College of Business Administration

Bachelor of Accounting
Bachelor of Business Administration with majors in
Finance
International Business
Management
Management Information Systems
Marketing
Personnel Management

Master of Accounting
Master of Business Administration
Master of International Business
Master of Science in Finance
Master of Science in Management Information Systems
Master of Science in Taxation

Doctor of Philosophy in Business Administration

College of Education

Bachelor of Science in
Art Education
Biology Education
Business Education
Chemistry Education
Elementary Education
English Education
History Education
Health Occupations Education
Home Economics Education
Industrial Arts Education
Mathematics Education
Modern Language Education (majors in French, German, and Spanish)
Music Education
Parks and Recreation Management
Physical Education
Social Studies Education
Special Education (majors in Emotional Disturbance, Mental Retardation, and Specific Learning Disabilities)
Vocational Education (majors in Technical Education and Vocational Industrial Education)

Master of Science in
Art Education
Business Education
Counselor Education (School and Community)
Diagnostic Teaching (majors in Emotional Disturbance, Mental Retardation, and Specific Learning Disabilities)
Early Childhood Education
Educational Leadership
Elementary Education

English Education
Health Occupations Education
Home Economics Education
Industrial Arts Education
International Development Education
Modern Language Education (majors in Spanish and French)
Mathematics Education
Music Education
Parks and Recreation Administration
Physical Education
Reading
School Psychology
Science Education
Social Studies Education
Teaching English to Speakers of Other Languages (TESOL)
Vocational Education (majors in Administration, Supervision, and Technical and Vocational Education)

Doctoral Programs (Ed.D.)
Adult Education and Human Resource Development
Community College Teaching
Curriculum and Instruction
Educational Leadership
Exceptional Student Education

College of Engineering and Applied Sciences

Bachelor of Science in
Apparel Management
Architectural Technology
Civil Engineering
Construction Management
Electrical Engineering
Environmental Technology and Urban Systems
Industrial Engineering
Interior Design
Mechanical Engineering

Master of Science in
Civil Engineering
Construction Management
Electrical Engineering
Environmental Engineering
Environmental and Urban Systems
Master of Landscape Architecture

School of Health Sciences

Bachelor of Science in
Dietetics and Nutrition
Medical Technology
Physical Therapy
Occupational Therapy
Prosthetics and Orthotics

Master of Science in
Dietetics and Nutrition
Medical Laboratory Sciences
Occupational Therapy

School of Hospitality Management

Bachelor of Science with a major in
General Hospitality Management

Master of Science in Hotel and Food Service Management

School of Nursing

Bachelor of Science in Nursing

School of Public Affairs and Services

Bachelor of Science in
Criminal Justice
Medical Record Administration
Social Work
Bachelor of Health Services Administration
Bachelor of Public Administration

Master of Science in
Criminal Justice
Master of Health Services Administration
Master of Public Administration
Master of Public Health
Master of Social Work

Doctor of Philosophy in
Public Administration (jointly with FAU)

North Miami Campus Programs

College of Arts and Sciences

Communication
English
Humanities
International Relations
Political Science
Psychology
Sociology/Anthropology

College of Business Administration

Undergraduate
Management
Marketing
Graduate

Master of Business Administration

College of Education

Undergraduate
Elementary Education
Early Childhood Education

Graduate
Adult Education (Ed.D.)
Community College Teaching (Ed.D.)
Curriculum and Instruction (Ed.D.)[1]
Early Childhood Education[1]
Elementary Education[1]
Reading

School of Nursing

Nursing

School of Public Affairs and Services

Undergraduate
Criminal Justice
Health Services Administration
Medical Record Administration
Public Administration
Social Work

Graduate Level
Criminal Justice
Health Services Administration
Public Administration (M.P.A., Ph.D.)
Public Health
Social Work

[1] The complete program of studies is not available on the North Miami Campus. The student is expected to complete course work at University Park.

Broward County Programs

College of Business Administration

Accounting - Bachelor's and Master's (BC/UT)
Business Administration - Doctoral (UT)
Finance - Bachelor's and Master's (BC/UT)
Taxation - Master's (UT)

College of Education

Adult Education and Human Resource Development - Master's and Doctoral (Ed.D.) (BC)
Community College Teaching - Doctoral (Ed.D.) (BC)
Educational Leadership - Doctoral (Ed.D.) (BC)
Elementary Education - Bachelor's and Master's (BC)
Health Occupations Education - Bachelor's and Master's (BC)

School of Hospitality Management

Hospitality Management - Bachelor's (BC)

School of Nursing

Nursing - Bachelor's (BC)

School of Public Affairs and Services

Health Services Administration - Bachelor's and Master's (BC/UT)
Public Administration - Master's (UT)
Social Work - Master's (UT)

Primary Location:
BC = Broward Center
UT = University Tower

Other degree programs are under consideration for possible implementation during the 1988-1989 academic year. In addition to the degree programs, a variety of courses are offered from the College of Arts and Sciences, the College of Engineering and Applied Sciences and the School of Health Sciences.

Minors

A minor program is an arrangement of courses enabling a student to develop a degree of expertise and knowledge in an area of study in addition to his or her major academic program of study.

To receive a minor, a student must also complete the requirements for a baccalaureate degree from the University. A minor is not interdisciplinary.

College of Arts and Sciences

Advertising
Art History
Biology
Chemistry
Computer Science
Economics
English
Environmental Studies
French Language and Culture
General Translation Studies
Geology
Geography
History
Human Biology
Humanities
Journalism
Mass Communication
Mathematics
Philosophy
Physics
Political Science
Portuguese
Psychology
Public Relations
Religious Studies
Sociology/Anthropology
Statistics
Telecommunications
Theatre
Visual Arts

College of Engineering and Applied Sciences

Apparel Manufacturing
Apparel Merchandising Management

School of Health Sciences

Medical Laboratory Sciences
Nutrition

School of Public Affairs and Services

Criminal Justice
Public Administration
Social Welfare

Certificates

Certificate Programs are structured combinations of courses with a common base of interest from one or more disciplines into an area of concentration.

Successful completion of a Certificate Program is entered on the student's transcript and records. Two types of certificates are awarded:

Academic Certificate: Awarded by an academic unit to a student at the time of awarding a bachelor's degree; or upon completion of the appropriate coursework to a student who already has a bachelor's degree.

An academic certificate shall not be awarded to a student who does not possess either a bachelor's degree or does not complete a bachelor's degree program. An academic certificate is to be interdisciplinary in nature, to the greatest extent possible.

Professional Certificate: Awarded by an academic unit to an individual who completes the appropriate coursework in the area of concentration. The professional certificate does not need to be interdisciplinary or associated with a degree program.

For details and course requirements, refer to the appropriate section in each College or School.

College of Arts and Sciences

Academic Certificates in
American Studies
Consumer Affairs
Environmental Studies
Ethnic Studies
Gerontological Studies
International Studies
Latin American and Caribbean Studies
Legal Translation and Court Interpreting
Linguistic Studies
Marine Science
Translation Studies
Tropical Commercial Botany
Western Social and Political Thought
Women's Studies

College of Business Administration

Banking
International Bank Management
International Business
Marketing

College of Education: Offers a variety of Professional Certificate and Add-On Teacher Certification programs. Refer to the College of Education program listing section.

College of Engineering and Applied Sciences

Professional Certificates in
Apparel Manufacturing/Management
Heating, Ventilation, and A/C Design
Industrial and Labor Relations
Industrial Safety Production and
  Manufacturing

Academic Certificate
Management and Consumer Affairs.

School of Health Sciences

Prosthetics and Orthotics

School of Hospitality Management

Hotel and Restaurant Management
Travel and Tourism Management

School of Nursing

Professional Certificate in
Advanced Nursing Practice in Adult Health

School of Public Affairs and Services

Academic Certificate
Law and Criminal Justice

Professional Certificates in
Gerontology
Justice Administration and Policy Making
Medical Record Coding
Public Budgeting and Financial Management
Public Personnel Management and Labor
  Relations

Office of Admissions

Florida International University encourages applications from qualified applicants without regard to sex, physical handicap, or cultural, racial, religious, or ethnic background or association.

Admission Procedure
Degree-seeking applicants can obtain an application for admission and related information from the Office of Admissions, PC 140, University Park, Tamiami Trail, Miami, Florida 33199; North Miami Campus, ACI-160, North Miami, Florida 33181; Broward Center, Whiddon Hall, Building 9, Room 226, 3501 S.W. Davie Road, Davie, Florida 33314; or by calling (305) 554-2363.

A completed Admission Application and all supporting credentials must be on file with the Office of Admissions before a final decision can be made on the admission of an applicant. The following credentials are required for admission by the Florida Board of Regents (BOR) and must be received by the following priority deadlines:

Fall Semester	April 1
Spring Semester	October 1
Summer Semester	March 1

Application for Admission: A fifteen dollar (15) non-refundable application fee must accompany the completed Admission Application form. Submission deadlines for each term are indicated in the catalog under Academic Calendar. Applications of non-admitted students will be kept on file for one year from the anticipated date of entry.

In addition to the application for admission, the following is required: Freshman Applicants: The official secondary school transcript sent directly from the school; scores of either the Scholastic Aptitude Test (SAT) or the American College Test (ACT), sent directly from the testing agency; and a 500-word handwritten autobiographical essay.

Transfer Applicants: Official transcripts from all previous post-secondary institutions must be forwarded to the Office of Admissions by the Registrar of the previous institutions. It is the responsibility of the applicant to initiate the requests. Transcripts must be received no later than one month before the first day of class of the anticipated date of entry.

Student Health Form: Every admitted applicant must complete the Student Health Form supplied by the University.

Freshman Admission Requirements

Beginning freshmen may apply to the University up to one year in advance, preferably in the early part of the senior year. The entering freshman class is limited in number, and priority will be given to applicants whose records indicate the greatest likelihood of success in the University. The Committee on Admissions is responsible for administering admissions to the University.

Requirements for Admission are:

1. Graduation from an accredited secondary school.

2. Nineteen academic units in college preparatory courses are required as follows:

English	4
Mathematics	3
Natural Science	3
Social Science	3
Foreign Language	2
Academic Electives[1]	4

[1] Academic Electives are from the fields of mathematic, English, natural science, social science, and a foreign language. Two units in the same foreign language are required. The total units are 19.

3. An overall 'B' average in academic courses.

4. A total score of at least 1000 on the SAT or a composite score of 23 on the ACT. (Lower school grade average considered with higher test score. Lower test score considered with higher grade average.)

5. A record of good conduct.

6. A 500-word handwritten autobiographical essay.

7. A personal interview when required.

Freshman applicants who do not meet the above minimum criteria will be reviewed by the Committee on Admissions. Applicants who show potential in areas not easily evaluated by standard tests can be considered for admission under the admission exception rule. This policy allows up to twenty percent of the students admitted for a particular academic year as exceptions to the above criteria.

All freshmen entering Florida International University are tested in the areas of computation, reading, writing, and English language skills. The results of these tests will be used to advise students with their academic program. The Freshman Testing Program is administered by the Student Testing Assessment Resources (STAR) Center in the Office of Undergraduate Studies. For information, please contact this office at 554-2840, PC 248, University Park.

Progression to Junior Year Status

Progression to Junior Year status is granted on the basis of the following:

1. Completion of at least 60 semester hours of academic work;

2. Completion of applicable lower division requirements in English and mathematics;

3. Presentation of passing scores on three of the four subsections of the College-Level Academic Skills Test (CLAST);

4. Completion of any other departmental prerequisites as specified by the University.

Undergraduate Transfer Requirements

Degree-seeking applicants with fewer than 60 semester hours of transfer credits must satisfy the same admission requirements as beginning freshmen and must demonstrate above satisfactory performance in previous college level studies.

Applicants who have completed an Associate of Arts degree at a Florida public community college, or who have earned 60 semester hours of college credit at any other regionally accredited institution at an acceptable performance level, are eligible for admission to the University.

Applicants who have completed an Associate of Science degree, or who have earned 60 semester hours of college credit at a Florida public community college with a GPA of a least 2.0, are eligible for admission to the University.

Applicants who meet the above admission requirements, but who have not completed the remaining general education requirements, or the prerequisite courses for admission to a particular degree program, or both, may complete this preparatory work either in the colleges or schools of the University, or at a Florida public community college or accredited institution, or by achieving a satisfactory score on the appropriate College Level Examination Program (CLEP) test.

All transfer applicants to the Upper Division from a public institution in Florida must present a passing score on the College Level Academic Skills Test (CLAST). All other Upper Division transfers must participate in the Pre-CLAST testing program during their first term of enrollment.

A minimum score of 500 is required on the Test of English as a Foreign Language (TOEFL) for non- English speakers.

Requirements for Admission to Undergraduate Teacher Education Programs In the College of Education, all applicants for teacher education programs must score at or above the 40th percentile on a standardized college entrance test, (i.e. a total score of 840 or higher on the SAT, or a composite score of 17 or higher on the ACT). It is possible for an applicant who fails to meet this criterion to appeal the admission decision and be considered under the 10 percent waiver rule of the College of Education.

Appeal Process

An undergraduate student who has been denied admission to a University degree program for academic reasons may appeal the decision by contacting respectively the Chairperson of the program, the Dean of the College or School, and finally the University Committee on Undergraduate Admission for recommendation to the Vice President of Academic Affairs. If the denial for admission to the University is for other than academic reasons, the appeal must be directed to the Vice President of Student Affairs.

Graduate Admissions

Applicants to a graduate program of the University must meet the minimum standards set forth by the Florida Board of Regents, the University, and when applicable, additional requirements set by each department for admission to a graduate program. Applicants must check the individual departmental requirements.

A student seeking admission into a graduate program of the University must have a bachelor's degree or equivalent from a regionally accredited institution or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level. The applicant must submit two official copies of all transcripts.

An applicant must, at a minimum, present either a 'B' average in upper level work, or a combined score of 1000 on the Graduate Record Exam (GRE) or a score of 500 on the Graduate Management Admission Test (GMAT) when applicable and required by the individual department, or a graduate degree from an accredited institution.

All graduate applicants, regardless of previous grade point average or degrees, are required to submit the appropriate aptitude test scores. An applicant who fails to meet these criteria may appeal the admission decision and be considered under the BOR's 10 percent policy. This policy allows up to 10 percent of the graduate students admitted for a particular academic year as exceptions to the above criteria.

Foreign graduate applicants are accepted subject to space and fiscal limitations. In addition to the above University admission requirements, foreign applicants must be academically eligible for further study in their own country and must demonstrate proficiency in the English language by presenting a score of 500 or higher on the Test of English as a Foreign Language (TOEFL). For further information, refer to the International Admissions section. Readmission An admitted degree-seeking student who has not enrolled in any course at the University for one year or more is eligible for readmission under the University and program regulations in effect at the time of readmission. Students must contact the Office of Admissions to apply for readmission.

International Admissions: Undergraduate and Graduate Admission Standards and Procedures

International student applicants must meet the admission requirements of the University as described in the previous sections and comply with the following:

Academic Records: Appropriate official transcripts, or certified copies of academic records and their English translations validated by an official public translator, and all other appropriate credentials, must be forwarded to the Office of Admissions.

Annual Estimate of Cost

(Nine Months)

	Florida Resident	Non-Florida Resident/ International Student
Tuition[1]		
Freshman-Sophomore (30 Semester Hours)	913.80	2961.30
Junior-Senior (30 Semester Hours)	1014.60	3629.10
Graduate (24 Semester Hours)	1321.44	4043.04
Housing On-Campus[2]	1422-2970	1422-2970
Board	1610	1610
Books & Supplies	500	500
Miscellaneous	900	1200-2000

International Students should add an additional 350 for Health Insurance

[1] Tuition fees are subject to change

[2] Cost vary with choice of on-campus accommodations

Proficiency in English: Must be established if the native language is not English. The following is accepted: A minimum score of 500 on the TOEFL. For information, applicants should contact: TOEFL Program, Box 899, Princeton, New Jersey 08540, U.S.A.

Declaration and Certification of Finances: Upon receipt of the application for admission, the Declaration and Certification of Finances will be mailed to the applicant. It must be completed and returned to the office before the Certificate of Eligibility (Form I-20A) is issued.

The University is required by immigration authorities to check carefully the financial resources of each applicant prior to issuing the Form I-20A. Therefore, it is important that applicants are aware of the cost of attending the University and have the necessary support funds for the period of enrollment. Applicants should refer to the Annual Estimate of Cost Chart. The total funds available for the student for the first or second academic year, or both, must equal the total estimate of institutional costs and living expenses. All items in the Declaration and Certification of Finances must be accurately answered to avoid unnecessary delay in processing. This document must be received by the Office of Admissions two months prior to the anticipated entry date.

Health Insurance: All international students are required to purchase health insurance coverage in order to help defray the cost of major medical expenses. The University recommends the policy endorsed by the National Association of Foreign Student Affairs. An informational brochure and application are mailed to each admitted student with the I-20 'Certificate of Eligibility". This information is available also in the offices of Admissions and International Student Programs and Services. Students who do not select the NAFSA insurance policy are required to submit evidence of coverage by another source along with the Declaration of Finances.

Required Entrance Tests: Freshman applicants are required to submit the results of the Scholastic Aptitude Test (SAT) or the American College Test (ACT).

Graduate applicants are required to take either the GRE or the GMAT. For information on the tests, applicants must contact the Educational Testing Service, Princeton, New Jersey 08540, U.S.A. Information about test center locations may also be obtained at the American Embassy in the applicant's home country.

Tuition: An international student is considered a non-resident and is assessed non-resident fees. Immigration regulations require an international student to attend school at least two semesters within an academic year. An undergraduate students is required to take a minimum of twelve credit hours per semester, and a graduate student a minimum of nine semester hours per term. (Refer to the Annual Estimate of Cost) A married student should plan on an additional 3,200 in costs to cover the living expenses of a spouse.

A couple with children should anticipate further yearly additional costs of no less than 1,000 for the first child, 800 for the second, and 600 for each additional child.

Note: Opportunities for financial assistance are limited for international students.

Full-Time Enrollment: The non-immigrant alien student on an F-1 visa is required by United States immigration regulations to be enrolled full-time, except for the summer terms, and to make satisfactory progress toward the degree program in each term; otherwise the visa status may be jeopardized. Full-time enrollment is defined as enrollment every term in, and successful completion of, a minimum of 12 semester hours (undergraduate), and a minimum of nine semester hours (graduate).

The laws and regulations of the United States Department of Justice, Immigration and Naturalization Service states:

It is the student's responsibility to comply with all non-immigrant alien requirements as stated under the United States laws under Section 101(a)(15)(f)(i) of the Immigration and Nationality Act. The University is required to report to the Immigration Office any non-immigrant alien student who: (a) does not register at the University at the time expected; (b) does not carry a full course of study; and (c) terminates attendance.

Granting official Extension of Stay is dependent upon the student's achieving normal academic progress toward the degree requirements.

Employment: An F-1 visa student may not be employed off-campus while attending the University unless permission has been granted by the U.S. Immigration and Naturalization Service. Normally, employment will not be permitted, especially during the student's first year of enrollment; but under very special circumstances, due to unexpected conditions or emergencies arising after the student's arrival, an international student may be recommended for a work permit. Adequate proof must be presented to the International Student Advisor to obtain the necessary recommendation. On-campus employment can be authorized by the International Student Advisor.

Note: An international student will not be granted admission to the University until all academic and non-academic requirements have been met. Under no circumstances should a student come to the University without having received the official Letter of Admission and the I-20A Form. All correspondence and document submissions should be directed to: Office of Admissions, Florida International University, PC 140, University Park, Miami, Florida 33199 U.S.A., telephone (305) 554-2363.

Undergraduate Studies

Academic Advising Center Academic advising of students with fewer than 60 semester hours of earned credits is the responsibility of the Office of Undergraduate Studies. When admitted to the University, the student is assigned to an advisor who will help plan the student's academic program. At the completion of 24 semester hours of earned credits, the student can choose an intended major, and after 60 semester hours, officially declare a major. Students with intended or declared majors will be advised by faculty members or professional advisors in their major department. All freshmen are required to participate in personalized Peer Advisor sessions and advising sessions offered by the Advising Center. Newly admitted sophomore transfer students who have not met the Core Curriculum requirements must participate in the Freshman Testing/Placement Program and the advising sessions before they will be allowed to register for courses at the University.

Non-degree-seeking undergraduate students are also advised by this office.

Academic information is available in PC 115, University Park, and ACII-130, North Miami Campus.

STAR Center-College Level Academic Skills Test (CLAST)

The State of Florida has developed a test of college level communication and computation skills. The test is called the College Level Academic Skills Test (CLAST). The STAR (Student Testing Assessment Resource) Center at the University is responsible for administering and processing the CLAST.

The CLAST is designed to test the communication and computation skills that are judged by state university and community college faculty to be associated with successful performance and progression through the baccalaureate level. The test is required by Florida statutes and rules of the State Board of Education.

The CLAST is administered toward the end of the sophomore year to university students as well as to community college students who are completing Associate of Arts or Associate of Science degree programs and are seeking admission to upper division programs in state universities in Florida. Students who do not take and pass CLAST will not be awarded the Associate of Arts, nor will they be admitted to upper division status in state universities in Florida. The CLAST requirements also apply to students transferring to state universities in Florida from private colleges in Florida and from out-of-state colleges.

Effective Fall Term 1984, the State Board of Education established minimum CLAST score standards for the award of the Associate of Arts and for admission to upper division status in state universities in Florida. The adopted standards follow:

Tests	Fall 1984 Scores	Fall 1986 Scores	Fall 1989 Scores
Reading	260	270	295
Writing	265	270	295
Computation	260	275	295
Essay	4	4	5

Since Fall Term 1984, students must pass all four sections of CLAST to receive the Associate of Arts degree. Students may be admitted to upper division status at a State of Florida university by passing at least three of the four sections of CLAST. However, students MUST pass the remaining section of CLAST by the time that they complete 96 college credits (includes all transfer credits and CLEP credit, etc.). Failure to pass the remaining section of CLAST will directly impact the student's eligibility to register for additional upper division courses at the University. Successful completion of CLAST is required for students to receive the baccalaureate degree from the University.

Freshman Testing/ Placement Program

All freshmen entering the University are required to participate in a series of placement tests prior to advising and registration. The components of the Freshman Testing/Placement Program include computational skills and standards of written English. Optional placement examinations are offered in modern languages and trigonometry. Students passing the optional examinations may be exempted from prerequisite Core Curriculum courses.

The CLAST, Freshman Testing/Placement program, institutional scholastic testing, and many national testing programs are coordinated by the STAR Center in the Office of Undergraduate Studies. The STAR Center is located in PC 248, University Park, 554-2840; and ACII-130, North Miami Campus, 940-5754.

Core Curriculum Requirements

The Core Curriculum requirements apply to all students entering the University with fewer than 48 semester hours. Students transferring with 48 semester hours or more may instead opt to fulfill the University's General Education Requirements. All students subject to the Core are informed of additional policies governing these requirements in mandatory academic advising sessions with the Office of Undergraduate Studies (University Park PC 115; North Miami Campus ACII-130):

English Composition (6 semester hours)

ENC 1101 Freshman Composition
(Required first semester)
ENC 1102
Techniques of Interpretation
(Prerequisite: ENC 1101 - required second semester)

Mathematics (6 semester hours)

Entry-level Course:
MAC 2132 Pre-Calculus
or
MGF 1202 Finite Math

Additional Mathematics Course: Qualified students may begin with a higher level mathematics course based upon the Placement Test or AP scores. Satisfactory scores on the National AP Calculus exam will substitute for Calculus I only.

The additional mathematics course may be selected from courses with prefixes COP, CGS, MAC, and STA.

Social Sciences (6 semester hours)

Students must select courses from two different Social Science areas:

Anthropology:

ANT 2003	Introduction to Anthropology
ANT 3402	Anthropology of Contemporary Society

Economics:

ECO 2013	Macro Principles
ECO 2023	Micro Principles

International Relations:

INR 2001	Introduction to International Relations

Political Science:

POS 2042	American Government
POT 2002	Introduction to Political Theory

Psychology:

PSY 2020	Introduction to Psychology

Sociology:

SYG 2000	Introduction to Sociology
SYG 3002	The Basic Ideas of Sociology

Natural Sciences (8 semester hours)

Biological Science with Laboratory (4 semester hours):

APB 1102C	Introductory Botany (4)
APB 2040	Foundations of Human Physiology (3)
APB 2040L	Foundations of Human Physiology Lab (1)
APB 2170	Introductory Microbiology (3)
APB 2170L	Introductory Microbiology Lab (1)
BSC 1010	General Biology I (3)
BSC 1010L	General Biology I Lab (1)
BSC 1011	General Biology II (3)
BSC 1011L	General Biology II Lab (1)
BSC 2023	Human Biology (3)
BSC 2023L	Human Biology Lab (1)

Physical Sciences with Laboratory (4 semester hours):

AST 2200	Modern Astronomy (3)
AST 2200L	Modern Astronomy (1)
CHM 1032	Survey of General Chemistry (3)
CHM 1032L	Survey of General Chemistry (1)
CHM 1045	General Chemistry I (4)
CHM 1045L	General Chemistry I Lab (1)
GLY 1015	Physical Geology (3)
GLY 1015L	Physical Geology Lab (1)
PHY 3048	Physics with Calculus (5)
PHY 3048L	General Physics Lab (1)
PHY 3053	Physics without Calculus (4)

Modern Languages

Students must acquire or demonstrate two-semester competency of any one foreign language.

FRE 1120	Basic French I
FRE 1121	Basic French II
ITA 3120	Italian I
ITA 3121	Italian II
POR 3130	Basic Portuguese I
POR 3131	Basic Portuguese II
SPN 1120	Basic Spanish I
SPN 1121	Basic Spanish II

Other languages such as Arabic, German, and Hebrew also are offered. The current schedule booklet indicates the courses offered by the Department of Modern Languages.

Arts (3 semester hours)

The Arts requirement may be satisfied by any one Core course selected from the following areas.

Humanities:

HUM 3211	Ancient Classical Culture and Civilization
HUM 3226	Medieval and Renaissance Culture and Civilization
HUM 3246	The Enlightenment and the Modern World

Literature:

ENG 2012	Approaches to Literature

Music:

MUH 1001	Musical Art Course
MUH 3116	Evolution of Jazz
MUL 3011	Understanding and Enjoyment of Music I
MUL 3012	Understanding and Enjoyment of Music II

Theatre:

THE 2020C	Introduction to Theatre

Visual Arts:

ARH 2050	Art History I
ARH 2051	Art History II
ARH 4470	Contemporary Art
ARH 4710	History of Photography
ART 1201C	2D Design
ART 1202C	3D Design
PGY 3410C	Photography

Historical Analysis (3 semester hours)

AMH 2015	Historical Analysis: The American Revolution
AMH 2053	Historical Analysis: Democracy in America
EUH 2015	Historical Analysis: Athens, Sparta, and the Peloponnesian War
EUH 2029	Historical Analysis: Medieval Chivalry
EUH 2069	Historical Analysis: The Russian Revolution
EUH 2074	Historical Analysis: De Tocqueville and the French Revolution
EUH 2235	Historical Analysis: The Romantic Tradition
LAH 2092	Historical Analysis: The Latin Americans
WOH 1001	Historical Analysis: World Civilization

Philosophical Analysis (3 semester hours)

PHI 2011	Philosophical Analysis

World Prospects and Issues (3 semester hours)

HUN 3191	World Nutrition
SSI 3240	World Prospects and Issues.

General Education Requirements

The Board of Regents has defined the General Education Requirements to consist of 36 semester hours. The University requires that all undergraduate students complete the 36 semester hours before graduation. For students entering the University with at least 48 semester hours, the requirement consists of six semester hours each in the areas of humanities, mathematics, natural science, and social science; and 12 semester hours of the Writing Requirement.

Only courses from the following list can fulfill the General Education Requirements at the University:

Writing Requirement

Students must successfully complete twelve hours of writing courses with a grade of 'C" or better. Six hours must be in composition. This requirement must be fulfilled by taking at least two English Department courses with an ENC prefix except ENC 1101 and ENC 1102. Students also must fulfill the Gordon Rule by taking six additional hours in courses each of which requires at least 6,000 words of written work. Students may fulfill this requirement by taking additional courses in composition (ENC prefix), Historical Analysis, Philosophical Analysis, and/or Approaches to Literature (ENG 2012)

ENC 1137	Essay Writing
ENC 3200	Business Letter and Reports
ENC 3210	Technical Writing
ENC 3211	Report and Technical Writing
ENC 3301	Expository Writing
ENC 4240	Report Writing
ENC 4241	Scientific Writing

Humanities

Art:

ARH 2050	Art History Survey I
ARH 2051	Art History Survey II
ART 1201C	2D Design
ART 1202C	3D Design
ART 3310C	Drawing (A 1000-level art course will be substituted for this course)

History:

AMH 2015	Historical Analysis: The American Revolution
AMH 2053	Historical Analysis: Democracy in America

AMH 3100	American History, 1607-1850
AMH 3200	American History, 1850-Present French Revolution
AMH 3317	America and the Movies
AMH 4560	History of Women in the U.S.
AMH 4570	Afro-American History
EUH 2015	Historical Analysis: Athens, Sparta,
EUH 2029	Historical Analysis: Medieval Chivalry
EUH 2069	Historical Analysis: The Russian Revolution
EUH 2074	Historical Analysis: De Tocqueville and the
EUH 2235	Romantic Tradition
HIS 3001	Introduction to History
LAH 2092	Historical Analysis: The Latin Americans
LAH 2092	Historical Analysis: The Latin Americans
WOH 1001	Historical Analysis: World Civilization
WOH 3280	Women's History

Humanities:

AML 3011	Survey of American Literature I
AML 3020	Survey of American Literature II
AML 3271	Afro American Literature
ENG 2012	Approaches to Literature
ENG 2100	Introduction to Film
ENG 3138	The Movies
ENG 4121	History of Film
ENG 4132	Studies of Film
ENL 3012	Survey of British Literature I
ENL 3022	Survey of British Literature II
HUM 3211	Ancient Classical Culture
HUM 3226	Medieval and Renaissance Culture and Civilization
HUM 3246	The Enlightenment and the Modern World
HUM 3302	Perspectives of the Humanities
HUM 3872	Perspectives of the Humanities
HUM 3891	Perspectives of the Humanities
HUM 3813	Applied Humanities
HUM 3941	Applied Humanities
HUM 4391	Human Concerns
HUM 4450	Cultural Heritages and Cultural Changes
HUM 4542	Human Concerns
HUM 4491	Cultural Heritages and Cultural Changes
LIN 2000	Introduction to Language
LIT 2010	Introduction to Fiction
LIT 2030	Introduction to Poetry
LIT 2040	Introduction to Drama
LIT 3110	World Literature I
LIT 3120	World Literature II
LIT 3200	Themes in Literature
LIT 3383	Women in Literature

Industrial Systems:

ETI 4692	Women in the Labor Movement

Modern Languages:

FRE 3500	Civilization I
FRE 4501	Civilization II
FRW 3200	Introduction to Literature
FRW 3520	Prose and Society
POR 3500	Luso-Brazilian Culture
SPN 4500	Culture I (Spain)
SPN 3520	Spanish American Culture
SPW 3820	Introduction to Literature

In addition, all elementary, intermediate, and advanced language courses.

Music:

MUH 1001	Musical Art History
MUH 3116	Evolution of Jazz
MUH 3211	Music History Survey
MUH 3212	Music History Survey
MUH 3372	Twentieth Century Music: Exploration
MUL 3011	Understanding and Enjoyment of Music I
MUL 3012	Understanding and Enjoyment of Music II

Philosophy:

PHI 2011	Philosophical Analysis
PHH 3100	Ancient Philosophy
PHH 3200	Medieval Philosophy
PHH 3420	Early Modern Philosophy
PHH 3440	Late Modern Philosophy
PHH 4600	Twentieth Century Philosophy
PHI 2100	Introduction to Logic
PHI 3500	Metaphysics
PHI 3600	Ethics
PHI 3762	Eastern Philosophical and Religious Thought
PHM 3200	Social and Political philosophy

Religious Studies:

REL 3100	Religion and Culture
REL 3172	Religion and Ethics
REL 3131	American Sects and Cults
REL 3300	Religions of the World

Theatre:

ORI 3000	Basic Oral Interpretation
THE 2020	Introduction to Theatre
PGY 3020	Introduction to Film-Making
THE 4110	Theatre History I
THE 4111	Theatre History II
THE 4370	Modern Dramatic Literature
TPP 3100	Introduction to Acting

Mathematics

(Must be at or above College Algebra level; one course may be in Computer Science.) A grade of 'C' or higher shall be considered successful completion of this requirement.

Pre-Gordon Rule students need three credits and they must be a in mathematics course only. Gordon Rule students need six credits, three of which can be a computer programming or statistics course.

CGS 3420	FORTRAN for Engineers
COP 2172	Programming in Basic
MAC 2132	Pre-Calculus
MAC 3233	Business Calculus
MAC 3311	Calculus I
MAC 3312	Calculus II
MGF 1202	Finite Mathematics
STA 3013	Statistics for Social Sciences
STA 3122	Introduction to Statistics
STA 3132	Business Statistics
STA 3163	Statistical Methods
QMB 3150	Application of Quantitative Methods in Business

Natural Science

Biological Sciences:

APB 1102C	Introductory Botany
APB 2040	Foundations of Human Physiology
APB 2040L	Foundations of Human Physiology Laboratory
APB 2170	Introductory Microbiology
APB 2170L	Introductory Microbiology Laboratory
APB 3253	Human Sexual Biology
BSC 1010	General Biology I
BSC 1010L	General Biology I Laboratory
BSC 1011	General Biology II
BSC 1011L	General Biology II Laboratory
BSC 2023	Human Biology
BSC 2023L	Human Biology Laboratory
OCB 2003	Introductory Marine Biology
OCB 2003L	Introductory Marine Biology Laboratory
PCB 2510	Issues in Genetics-recDNA and IQ

Chemistry:

CHM 1032	Survey of General Chemistry
CHM 1045	General Chemistry I
CHM 1046	General Chemistry II
CHM 3200	Survey of Organic Chemistry

Dietetics and Nutrition:

HUN 3201	Principles of Nutrition

Environmental Studies:

EVR 3010	Energy Flow in Natural and Man-made Systems
EVR 3011	Environmental Resources and Pollution
EVR 3013C	Ecology of South Florida
EVR 4311	Energy Resources

Geology:

GEO 3200	Physical Geography
GEO 3510	Earth Resources
GLY 1015	Physical Geology
GLY 1100	Historical Geology
GLY 4650	Paleobiology
OCE 3014	Physical Oceanography

Physics:

AST 2200	Modern Astronomy
AST 3025L	Observational Astronomy
PHY 3048	Physics with Calculus
PHY 3048L	Physics with Calculus Laboratory I
PHY 3049L	Physics with Calculus Laboratory II
PHY 3054	Physics without Calculus II
PHY 3020	Concepts in Physics
PSC 3351	Earth Physics
PHY 3037	Frontiers of Physics

Social Science

Anthropology:

ANT 2003	Introduction to Anthropology

Apparel Management

CHD 3220	Child Development: Infancy and Early Childhood
CHD 4210	Middle Childhood and Adolescent Development
FAD 3232	Relationships
FAD 4230	Family Life Cycle
FAD 4340	Family Development

Criminal Justice:

CCJ 3011	The Nature and Causes of Crime

Economics:

ECO 2013	Macro Principles
ECO 2023	Micro Principles

International Relations:

INR 2001	Introduction to International Relations
NR 3043	Population and Society
GEA 3000	World Regional Geography
GEO 3471	Political Geography

Political Science:

POS 2042	American Government
POS 3044	Government and Politics of the U.S.

Psychology:

CLP 3003	Personal Adjustment
CLP 4144	Abnormal Psychology
CYP 3003	Introduction to Community Psychology
DEP 3000	Human Growth and Development
DEP 3001	Psychology of Infancy and Childhood
DEP 3303	Psychology of Adolescence
DEP 3402	Psychology of Adulthood
DEP 4464	Psychology of Aging
EAB 4794	Principles and Theories of Behavior Modification
EXP 3304	Motivation and Emotion
EXP 4605	Cognitive Processes
INP 3002	Introductory Industrial/ Organizational Psychology
PPE 3003	Theories of Personality
PSY 2020	Introductory Psychology
SOP 3004	Introductory Social Psychology
SOP 3015	Social and Personality Development
SOP 3742	Psychology of Women
SOP 3772	Psychology of Sexual Behavior
SOP 3932	Psychology of Drugs and Drug Abuse
SOP 4525	Small Group Behavior
SOP 4645	Consumer Psychology
SOP 4834	Psychology of Health and Illness

Sociology:

SYG 2000	Introduction to Sociology
SYG 3002	Basic Ideas of Sociology

Additional Policies and Requirements

1. A student who has recently graduated from a Florida public community college with an Associate of Arts degree will have met the University's General Education Requirements.

2. A student who has recently met the General Education Requirements of any institution in the State University System of Florida will have met the University's General Education Requirements.

3. A student who has taken the freshman and sophomore years in an accredited college other than a Florida public community college or an institution in the State University System of Florida, may receive credit for courses meeting the University's General Education Requirements.

4. A student may be admitted before completing an equivalent general education program, provided such a program is completed at the University prior to graduation.

5. Most departments require for admission to their degree programs certain freshman and sophomore courses in addition to the General Education Requirements. Applicants should consult the catalog section dealing with the program they which to pursue to determine the nature and extent of the additional requirements.

Transfer Credit

For purposes of clarity, transferability refers to the conditions under which the University accepts credits from other post-secondary institutions. Applicability of credit toward a degree refers to the prerogative of the respective academic division to count specific credit toward a student's degree requirements. Normally, collegiate work will be considered for transfer credit only from post-secondary institutions which are fully accredited by a regional accrediting association. The Office of Admissions will evaluate the acceptability of total credits transferable to the University. Transfer credit will be applied as appropriate to a student's degree program. The authority to apply such credit to the degree rests with the academic division of the student's intended major. If a student chooses to transfer to another academic division within the University, credit previously earned at another post-secondary institution will be reevaluated and applied as appropriate to the student's new degree program.

A maximum of 60 lower division semester hours taken at a two- or four-year institution may be counted toward a degree at the University. A maximum of 30 additional upper division semester hours taken at a senior institution may be counted toward a degree at the University.

Lower division courses in excess of 60 semester hours may serve to meet specific course requirements for an FIU degree but credit hours represented by these courses will not reduce the number of credit hours to be completed at the University.

A grade of 'D'will be accepted for transfer. However, such a grade in coursework in the major field is subject to review and approval by the appropriate academic department. Credit from institutions not fully accredited by a regional accrediting association will not be accepted; however, when presented, it will be considered on an individual basis by the appropriate College or School. Credit from military schools will be transferred in accordance with the recommendations of the American Council on Education. Credit from foreign institutions will be considered on an individual basis.

Acceleration

The academic programs of the University are planned in such a manner that students may complete some of their division degree requirements through one or more of the mechanisms listed below. Specific information on the accelerated mechanisms utilized in each academic program is available from the department or program of the student's major.

Credit For Non-College Learning

Undergraduate: The award of credit for learning acquired outside of the university or classroom experience is the prerogative of each academic department or program. Only degree-seeking students are eligible to receive this type of credit. The significant learning must be applicable to the degree program of the student, and should be discussed and appropriately documented at the time the desired program of study is initially discussed and decided with the student's program advisor.

Graduate: Graduate credit, per semester, will not normally be awarded for experiential learning. In cases where a student's learning experience would appear to have been sufficient to develop the understanding and skills associated with a course that would otherwise be included in his or her graduate program of study, he or she will be allowed to register for Independent Study credits and demonstrate competency through development of an appropriate project acceptable to the faculty member who represents that specific area of specialization. Not more than 10 semester hours of a 30 semester hour master's degree, nor 15 semester hours of a 60 semester hour master's degree, may be so earned. A student wishing to have this policy waived, wholly or in part, may petition the Dean of the academic unit to which he or she has been admitted for special consideration, and final responsibility for a decision will rest with the Dean.

College Level Examination Program (CLEP)

The College Level Examination Program is designed to measure knowledge in certain subject matter areas of general education. There are two types of CLEP tests: General Examination and Subject Examination.

Because CLEP credit is regarded as transfer credit, no matter how earned, the maximum transferability of credit under CLEP, both General and Subject examinations combined, is 45 semester credits.

Not more than six semester hours will be transferred in each of the five areas of the General Examination (English, humanities, mathematics, natural sciences, social sciences/history). The English examination must be with essay and will not count towards the English Composition requirement.

For additional information on CLEP, contact the Office of Admissions.

Core CLEP and Advanced Placement

The University awards credit for CLEP scores at the 50th percentile or higher and Advanced Placement test scores of three, four and five. For students completing the core requirements, only the following examinations will be recognized for credit. It is strongly recommended that CLEP examinations be taken prior to enrollment at the University.

CLEP Subject Examinations: American Literature, Analysis and Interpretation of Literature, Calculus, English Literature, General Biology, General Chemistry, General Psychology, Introduction to Psychology, Introduction to Sociology, Macro Economics, Micro Economics, Modem Language.

Advanced Placement: Art History, Biology, Calculus, Chemistry, English, French Literature, Modern Language, Music Listening and Literature, Music Theory, Physics, Spanish Literature.

General Education CLEP

The University awards credit for CLEP scores at the 50th percentile or higher and Advanced Placement test scores of three, four and five. For students entering with more than 48 semester hours, the following CLEP general examinations can meet the General Education requirements:

English Composition with Essay: A student will be awarded up to six semester hours of credit for English, less hours previously earned in any college-level English course. These credits will not count towards fulfilling the English Composition requirement.

Humanities: A student will be awarded up to six semester hours of credit if a satisfactory score is achieved.

Mathematics: A student will be awarded up to six semester hours of credit if a satisfactory score is achieved.

Natural Science: A student will be awarded up to three semester hours of credit in biology or physical science, or both, if a satisfactory score is achieved.

Social Science: A student will be awarded six semester hours of credit if a satisfactory score is achieved.

For additional information regarding the CLEP Subject Examinations, contact the Office of Admissions.

Faculty Scholars Program

Outstanding entering freshmen are selected each year for the distinguished Faculty Scholars Program.

The program provides scholarship aid and a rigorous academic curriculum for full-time students. Scholarships are awarded solely on academic merit and are renewed each semester contingent upon the student's maintaining a minimum 3.5 GPA.

To meet the eligibility criteria, applicants must have:

1. Outstanding high school performance; a minimum academic average of 3.5 in a college preparatory curriculum for the 9th, 10th, 11th, and 12th grades.
2. A total score of 1200 on the SAT or a total score of 27 on the ACT.
3. Two recommendations by high school guidance counselors or teachers, or both.
4. A 500-word autobiographical essay submitted with the application.
5. A personal interview with the Faculty Scholar Director or designee. For more detailed information, applicants should contact the Faculty Scholars Program, PC 115, University Park, 554-2892; or ACII-130, North Miami Campus, 940-5754.

Traveling Scholar Program

The University participates in a traveling scholar program which enables a graduate student to take advantage of special resources available on another campus but not available on his or her own campus, special course offerings, research opportunities, unique laboratories, and library collections. Further information may be obtained from the Dean of the graduate program in which the student is enrolled.

Pre-medical Advisement

For their initial advisement, students interested in entering professional schools of medicine, dentistry, optometry, or veterinary medicine should contact either the Department of Biology, OE 246, 554-2201, or the Department of Chemistry, OE 200, 554-2606, at University Park at the earliest possible time. After completing a substantial portion of their professional courses or at the end of their junior year, and prior to the Fall Term in which they plan to apply to professional schools, students should contact the Chairperson of the Premedical Advisement and Evaluation Committee in the College of Arts and Sciences. The Committee provides additional advisement for students wishing to enter the health professions and prepares recommendations for those applying to professional schools.

Pre-Law Advisement

Students interested in receiving information on pre-professional education, on application procedures, testing, and references should contact either the Department of Political Science in the College of Arts and Sciences or the Department of Criminal Justice in the School of Public Affairs and Services. A faculty advisor in either department will advise students who plan to attend law school.

Office of Registration and Records

The Office of Registration and Records is responsible for directing the University Registration activities, and establishing, maintaining, and releasing students' academic records. The office is also responsible for space and scheduling, Veteran's Affairs, off-campus registration, graduation, and providing academic advising support.

The University Park office is located in PC 130, 554-2383, the North Miami Campus office is located in ACI-160, 940-5750, and the Broward Center office is located on the Broward Community College Central Campus in Whiddon Hall (Building 9), Room 233, 948-6747.

Classification of Students

The University classifies students as follows:

Degree-Seeking Students

This category includes students who have been admitted to a degree program, but have not completed the requirements for it.

Freshmen\Students who have earned fewer than 30 semester hours.

Sophomores\Students who have earned at least 30 semester hours but fewer than 60 semester hours.

Juniors\Students who have earned at least 60 semester hours but fewer than 90 semester hours.

Seniors\Students who have earned 90 or more semester hours but who have not earned a baccalaureate degree.

Graduate\Students admitted to a graduate program.

Non-Degree-Seeking Students

These students may be either affiliated or unaffiliated in their status. Unaffiliated students are limited to taking one semester of courses at the University. Affiliated students must be approved by the appropriate College or School and must meet its specific requirements. Under no circumstances may more than 15 hours taken as a non -degree-seeking student be applied toward graduation requirements at the University if the student should change from non-degree-seeking to degree-seeking status.

The following regulations will apply to non-degree-seeking students:

1. Such students are not required to meet the usual admission requirements and are not officially admitted as regular students. Enrollment as a non-degree-seeking student does not imply a right for future admission as a regular, degree-seeking student. Credit earned will not be counted toward a degree at the University unless such students subsequently apply for regular admission and are accepted as undergraduate or graduate students.
2. Registration is permitted on a space-available basis and is determined at the time of registration. Non-degree-seeking students may not register during the official registration week for degree-seeking students.
3. No more than 15 undergraduate level and 12 graduate level semester hours earned as a non-degree-seeking student may be counted toward a degree. The appropriate Dean must approve the acceptance of such credit.
4. Non-degree-seeking students will not be allowed to register for more than one term without obtaining admission to a degree program at the University; obtaining admission into a formal Certificate Program; or acquiring affiliated status from the department in which they are registering.
5. Applicants denied admission to the University as degree-seeking students will not be permitted to enroll as non-degree-seeking students in the same program for a period of one year.
6. Immigration regulations prevent most foreign nationals from enrolling without being admitted into a formal degree or certificate program, depending on the visa type. Therefore, international students will not be permitted to enroll as non-degree-seeking students without the permission of the Admissions Office.

Transient Students

This category includes students who are fully admitted and are actively pursuing a degree at another accredited two or four year institution. Such students will need to present evidence of their status each semester before they will be allowed to register.

Affiliated Students

Students applying for affiliated status as non-degree-seeking students must be approved by the appropriate Dean's Office in accord with criteria approved by that College or School's Faculty Curriculum Committee.

Affiliated non-degree-seeking students will be given priority over unaffiliated non-degree-seeking students and transient students.

Certificate Students

This category includes students who have been accepted into a specific certificate program by the academic department responsible for that program.

College/Major Classification

Lower division students have a college designation of lower division with a major designation of their intended major (if indicated by the student). This does not imply subsequent admission to that degree program.

Degree-seeking upper division students admitted to an upper level degree program are classified according to the college or school and major of their degree program, and the college or school and major of their second major, when applicable.

When admitted students reach a total of 60 or more credit hours (including transfer and current enrollment), they may apply for admission into an upper division major, provided they have passed the CLAST. All degree-seeking undergraduates must be admitted into an upper division major prior to completing 75 credit hours, including transfer hours.

Graduate students will be classified according to the college or school and major of their degree program.

Full-time course load: Undergraduate, 12 semester hours; graduate, nine semester hours.

Academic Degree Requirements

Bachelor's Degree: The University will confer the bachelor's degree when the following conditions have been met:

1. Recommendation of the faculty of the College or the School awarding the degree.
2. Certification by the Dean of the College or the School concerned that all requirements of the degree being sought have been completed.
3. Completion of the last 30 credit hours at the University. Exceptions (normally not to exceed six hours) may be made in advance by the appropriate Dean.
4. Completion of the General Education Requirements or, in the case of students admitted with fewer than 48 transfer hours, the Lower Division Core Curriculum.
5. Earned a GPA of 2.0 or higher at the University.
6. The grade requirements for major, core courses, and course sequences established by the appropriate College or School.

Master's Degree: The University will confer the master's degree when the following conditions have been met:

1. Recommendation of the faculty of the College or the School awarding the degree.
2. Certification by the Dean of the College or the School concerned that all requirements of the degree being sought have been completed.
3. Earned an overall average GPA of 3.0 in all courses
4. Met the grade requirements for major, core courses, and course sequences established by the appropriate College or School.

Doctoral Degree: The University will confer the doctoral degree when the following conditions have been met:

1. Recommendation of the faculty of the College or School awarding the degree.
2. Completion of the residency and time limitation requirements.
3. Satisfactory completion and defense of a doctoral dissertation.
4. Certification to the Registrar by the Dean of Graduate Studies that all academic requirements have been met.

Two Bachelor Degrees: Two bachelor degrees may be awarded simultaneously when the following conditions have been met:

1. Requirements for two majors have been completed as certified by the appropriate academic units.
2. A minimum of 30 appropriate semester

hours in addition to the requirements of one degree has been earned.

3. A graduate from an accredited four-year institution who applies for admission to work toward a second bachelor's degree must meet the requirements of the major department which shall include (but is not limited to) a minimum of 30 semester hours of coursework.

Two Majors for a Bachelor's Degree: Any undergraduate student who elects to do so may carry two majors and work to fulfill the requirements of both concurrently. Upon successful completion of the requirements of two majors, the student will be awarded one degree and a notation denoting both majors will be entered on the transcript. A Request for Second Major Form must be filled out in the Office of Registration and Records to declare two majors.

Minors and Certificate Programs: Students who have completed an approved minor as part of their baccalaureate degree program will have this notation as a part of the degree comment on their transcript.

Students who have completed an approved certificate program will have an appropriate notation placed on their transcript.

Associate of Arts: Students who satisfactorily complete 60 semester hours of acceptable college work with an overall GPA of 2.0 or higher, fulfill the Lower Division Core requirements, and complete at least 20 credit hours in residence at the University may apply for the Associate of Arts degree. The degree will not be awarded after completion of the baccalaureate degree. A notation will appear on the student's transcript but no diploma will be issued.

Summer Enrollment

All students entering a university in the State University System with fewer than 60 credit hours shall be required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a state university.

Academic Definitions Program and Course Regulations

Credit Hour: 'The term 'credit hour' as used refers to one hour of classwork or the equivalent each week for an entire academic term. Major: An integral part of the bachelor's and master's degree is a major concentration of coursework in an approved academic discipline or area. The exact course and credit requirements and prerequisites for each major are outlined in the departmental program areas in the Catalog.

Electives: Students may usually select courses from any academic area to complement their area or areas of study or to meet their interests in order to fulfill the credit hour requirements for the bachelor's or master's degree. Prerequisite course requirements should be considered in selecting elective courses. Students should refer to their academic program requirements concerning electives.

Minor Program: A minor program is an arrangement of courses that enables students to develop some degree of expertise in one area of study. A minor is awarded upon completion of the bachelor's degree, but is not interdisciplinary in nature.

Certificate Program: In the Colleges and Schools of the University, a certificate program is a combination of courses with a common base or interest selected from one or more academic disciplines and so arranged as to form an area of academic concentration. Three types of certificates are awarded: Academic, professional, and continuing studies. Students must apply and be admitted into the Professional certificate program.

Change of College/School or Major: A fully admitted undergraduate student can change majors, provided he or she meets the entrance requirements of the new program, by submitting a 'Request for Change of College/School or Major' form. The form and instructions are available in the Office of Registration and Records. The student is subject to the program requirements in effect at the time of the change of major. A fully admitted graduate student can change majors, provided he or she meets the entrance requirements of the new program, by obtaining and submitting the form to the Office of Admissions. The student is subject to the program requirements in effect at the time of the change of major.

Registration

The following registration information is subject to change and students must verify the dates with the Office of Registration and Records, PC 130, University Park; or ACI-160, North Miami Campus; or at the Broward Center, BCC Central Campus, Whiddon Hall (Building 9), Room 223.

Registration for courses is as follows: Registration Week is held during the preceding semester (check the Academic Calendar for the dates) and ends one week later. Degree seeking students are given an appointment day and time based on their classification, GPA, and credit hours completed. Students may not add/drop at this time.

Open Registration is held following Registration Week and lasts for one week only. There is no appointment day and time and registration is on a first-come, first-serve basis. All students who have not yet registered are encouraged to do so at this time. Students who have already registered may add or drop courses during this period.

Registration Day is held prior to the beginning of the term and is for one day only. Students who have not registered should do so at this time to avoid a late registration fee. (Check the Academic Calendar for the date).

Telephone Registration

Fully admitted, degree-seeking students are able to register, add and drop courses using a touchtone telephone. Students able to use this system are given a security access code and information on the Voice Response Telephone Registration system by the Office of Registration and Records.

Immunization

To register for courses, students must provide the University Health Clinic (OE 115, University Park; TC 110, North Miami Campus) with documentation of immunization against measles and rubella. Students should contact the Health Clinics for more information.

Late Registration Fee

Any student, degree-seeking or non-degree-seeking, who initiates registration after Registration Day is assessed a $25 late registration fee. A student may initiate late registration during the first week of classes.

Dropping and Adding Courses

The Official Drop/Add period runs throughout the first week of classes (Refer to the Academic Calendar for specific dates). During this period a student may add courses or register with a late registration fee. Students may also drop courses or withdraw from the University with no records kept of the courses and without a tuition fee liability. The student must submit a drop/add card to the Office of Registration and Records to officially drop a course. If the tuition fee has already been paid, the student must fill out a Refund Request Form with the Cashier's Office.

Late Adds

Students may add courses with appropriate authorization and signatures until the end of the second week of classes. No course can be added after this deadline.

Late Drops

Courses officially dropped after Drop/Add period and through the eighth week of the term are recorded on the student's transcript with a symbol of DR (dropped). The student is financially liable for all dropped courses. The student must submit a Course Drop Form to the Office of Registration and Records to officially drop a course. Non-attendance or nonpayment of courses will not constitute a drop.

A student may appeal the deadline for a late drop by submitting the Appeal for Late Drop form to the Office of Registration and Records. A drop after the deadlines will be approved only in cases where circumstances beyond the student's control make it impossible for the student to continue. The instructor will designate whether the student was passing or failing the course at the time of the drop. The deadline to submit this appeal is the last day of classes.

Withdrawal from the University

A currently registered student can withdraw from the University only during the first eight weeks of the semester. In the Summer Semester, withdrawal deadlines will be adjusted accordingly. A Withdrawal Form must be filled out and submitted to the Office of Registration and Records. Non-attendance or non-payment of courses will not constitute a drop. (Refer to the Academic Calendar for the deadline dates.)

The transcript record of a student who withdraws during the Drop/Add period will contain no reference to the student being registered that semester and no tuition fee is assessed. If the tuition has already been paid, a Refund Request Form must be filled out with the Cashier's Office. If a student withdraws from the University prior to the end of the fourth week of classes, a 25 percent refund, less a bonding fee, will be made.

The transcript record of a student who officially withdraws after Drop/Add period and before the end of the eighth week of the term will contain a WI for each course. A student may appeal the deadline for a late withdrawal by submitting the Appeal for Withdrawal form to the Office of Registration and Records. A withdrawal after the deadline will be approved only in cases where circumstances beyond the student's control make it impossible for the student to continue. The instructor will designate whether the student was passing or failing the course(s) at the time of the withdrawal.

The transcript record of a student who stops attending the University without officially withdrawing from the University will contain an F grade for each course. The deadline to submit this appeal is the last day of classes.

Grading System

Grades		*Grade Points Per Credit Hour*
A		4.00
A-		3.67
B+		3.33
B		3.00
B-		2.67
C+		2.33
C		2.00
C-		1.67
D+		1.33
D		1.00
D-		0.67
F	Failure	0.00
P	Satisfactory (Pass)	N/A
IN	Incomplete[1]	N/A
WI	Withdrew from University	N/A
WP	Withdrew after deadline with passing grade	N/A
WF	Withdrew after deadline with failing grade	0
AU	Audit	N/A
DR	Dropped Course	N/A
DP	Dropped after deadline with passing grade	N/A
DF	Dropped after deadline with failing grade	0
NR	Grade Not Reported or Invalid[2]	N/A
EM	Examination	N/A

[1] IN is only a temporary symbol. It will revert to the default grade after two terms.

[2] NR is only a temporary symbol. It will default to an F after two terms if it is not changed by the instructor.

Note: All courses for which a student is officially registered at the end of the Drop/Add Period and on which a Letter Grade, a DF, or a WF is received are calculated in the GPA.

Grading Options

The Colleges and the Schools make the determination of the grading option of each course. A course may be offered for a letter grade as listed above or Pass/Fail; or for an optional grade in which the student has a choice of either receiving a letter grade or pass/fail; or the student may choose to audit a course and an AU grade will be recorded on the student's records. The grading option must be indicated at the time of registration. The grading option cannot be changed after the Drop/Add period. There are no exceptions to this deadline.

To register for an audit, the student must obtain the permission and signature of the instructor of the course audited

Incomplete Grade

An incomplete grade is a temporary symbol given at the discretion of the instructor for work not completed because of serious interruption not caused by the student's own negligence. An incomplete must be made up within two semesters or it will automatically default to the grade that the student earned in the course. There is no extension of the two semester deadline. The student must not register again for the course to make up the incomplete.

Forgiveness Policy

A forgiveness policy is a way in which a student may repeat a limited number of courses to improve his or her grade point average (GPA) by having only the grade received on the last repeat used in its calculation. Under the University's forgiveness policy, a student must file a Repeated Course Form with the Office of Registration and Records. The form must be submitted no later than one year after the semester in which the grade was received. All courses taken with the grades earned will be recorded on the student's transcript. The repeated course form will not be processed if the first or repeated grade received is DR, DP, WI, WP, AU, NR, or EM. Repeated courses will be appropriately designated (T: attempted; R: last repeat).

Undergraduate students may take advantage of the forgiveness policy only four times for the purpose of improving the GPA. The same course may be repeated up to four times or the student may use the four opportunities to apply to four different courses. Only the final grade for the four courses repeated under the forgiveness policy will count in computing the student's GPA. The recalculation of the GPA is an internal University policy only, and one which may not be followed by other institutions and/or services. In order for a course to be considered as repeated and lead to the adjustment of the GPA, the course must be the same and must be repeated at the University. Students who have used their four options under the forgiveness policy may still repeat courses. However, both the original grade and any additional grades received through repetitions of the course will be used in computing the GPA.

Graduate students may repeat no more than two courses under this rule with no course being repeated more than once. The course shall be repeated on a letter grade basis. Only the grade and credit received in the second attempt shall be used in computing the overall GPA. However, the original grade will remain posted on the student's permanent record, but will not be used in computing the overall GPA.

A course taken on a letter grade basis must be repeated on the same basis. A student will not be allowed additional credit or quality points for a repeated course unless the course is specifically designated as repeatable (independent study, studio courses, etc.). If a student is not using the forgiveness policy, he or she may still repeat a course. All attempts will apply to computation of the GPA but credit for one attempt will apply toward graduation. Students must check with the appropriate academic department to determine whether there are additional restrictions on repeating courses.

Departmental Credit by Examination

Departmental credit by examination is available for certain courses. A student who has already gained knowledge of a subject offered at the University and who wishes to take an examination in lieu of taking the course should discuss the matter with his or her academic advisor and with the department offering the course.

Awarding departmental credit by examination is the prerogative of each academic unit. To receive credit by examination, a student must be a regular degree-seeking student, register, and pay for the courses in the regular manner. Once the student is awarded the Departmental Credit by Examination, an EM grade will be recorded on the transcript.

Change or Correction of Grades

Once submitted, end-of-semester grades (except Incompletes and NR's, which default at the end of two terms) are final and are subject to change only through a Change of Grade Form to correct an error in computation or transcribing, or where part of the student's work has been unintentionally overlooked.

Final Examinations

Final course examinations will be given during the week following the last day of classes during each semester. The Summer semesters do not have final examination periods and course examinations may be given at the discretion of the faculty member teaching the course.

Grade Reports

At the end of each semester, the Office of Registration and Records mails each registered student a copy of his or her end of term grades

Dean's List

Any fully admitted undergraduate student who earns a semester average of 3.5 or higher on nine or more semester credit hours of coursework for which grade points are earned, is placed on the Semester Dean's List. This achievement is noted on the student's semester report of grades and permanent academic record (transcript).

Application for Graduation

Each student who plans to graduate is required to submit to the Office of Registration and Records an Application for Graduation form. This form, supplied by the Office of Registration and Records, must be submitted before the end of the third week of classes of the academic semester in which graduation is expected. A student turning in the Application for Graduation after the deadline will graduate the following semester. There is no charge for applying for graduation. The Application for Graduation must be signed by the academic advisor prior to being submitted to the Office of Registration and Records.

A student denied graduation must complete the remaining requirements needed for graduation and must re-apply for graduation.

Academic Honors (Undergraduate)

To graduate with Highest Honors, a student must have earned a cumulative GPA of 4.0.

To graduate with High Honors, a student must have earned a cumulative GPA between 3.75-3.999.

To graduate with Honors, a student must have earned a cumulative GPA between 3.50-3.74.

To graduate with the above honors, the student must have completed forty semester hours at the University for which grade points are awarded.

Academic Warning, Probation, and Dismissal

Warning: A student whose cumulative GPA falls below a 2.0 (undergraduate) or 3.0 (graduate) will be placed on warning, indicating academic difficulty.

Probation: A student on warning whose cumulative GPA falls below 2.0 (undergraduate) or 3.0 (graduate) will be placed on probation, indicating serious academic difficulty. The College/School of the student on probation may appropriately communicate conditions which must be met in order to continue to enroll.

Dismissal: A student on Probation whose cumulative and semester GPAs fall below a 2.0 (undergraduate) or 3.0 (graduate) will be automatically dismissed from his or her program and the University. An undergraduate student will not be dismissed if his or her GPA remains above the graduation requirement of 2.0 and prior to attempting a minimum of 20 semester hours of coursework. A graduate student will not be dismissed if his or her GPA remains above the graduation requirement of 3.0 and prior to attempting a minimum of 12 hours of coursework as a graduate student. The student has ten working days to appeal the dismissal decision. This appeal must be made in writing to the Dean of the College or the School in which the student is admitted. The dismissal from the University is for a minimum of one year. After one year, the student may apply for readmission (see Readmission) to the University in the same or a different program, or register as a non-degree seeking student. There are no exceptions to the one year waiting period.

Dismissed students applying for admission or registering as non-degree seeking students are placed on academic probation.

Student Records

Florida International University assures the confidentiality of student educational records in accordance with State University System rules, state, and federal laws including the Family Educational Rights and Privacy Act of 1974, as amended. Student academic records are maintained in the Office of Registration and Records and in the academic department of the student's major. As a rule, all currently enrolled and former students have the right to review their records to determine their content and accuracy. Parents of dependent students, as defined by the Internal Revenue Code, and who give evidence of the dependent status, have the same rights. For the cost of photocopying, students may generally have copies of any documents in their file, except for other institutions' transcripts.

Transcripts

The transcript is the complete student record of courses taken at the University, in addition to the number of transfer credits accepted. The GPA is calculated for all courses taken at the University after Fall Term 1975 whether the courses are in the major program or not. Once a baccalaureate, master's, or doctorate degree is earned, the GPA recalculation starts again. A student must request his or her transcript in writing. There is a processing period. The transcript will not be released if the student has a University financial liability.

Class Attendance

The University does not have an attendance policy. However, individual faculty may establish attendance criteria in classes where it is necessary for academic reasons. Academic units may establish their own attendance policies with the approval of the Provost.

Veterans Information

The Office of Veterans Affairs assists all veterans and their dependents who wish to receive VA educational benefits. The Office also provides personal counseling, fee deferments, tutorial assistance, and work-study jobs. The VA Office is located in PC 130, University Park; and in ACI-160, North Miami Campus.

Veterans who are planning to attend the University should contact the Office of Veterans Affairs two months prior to the date of entry in order to expedite the processing of paperwork required to obtain educational allowances from the Veterans Administration.

Training Status

	Undergraduate	Graduate
Full time	12 Credits	9 Credits
3/4 time	9 Credits	7 Credits
1/2 time	6 Credits	5 Credits
Less than 1/2 time	5 Credits	4 Credits

Rate of Payment

Number of Dependents

	none	one	two	each add'l.
Full time	$376.00	$448.00	$510.00	$32.00
3/4 time	283.00	336.00	383.00	24.00
1/2 time	188.00	224.00	255.00	17.00
Less than 1/2 time	Cost of Tuition			

For additional information regarding other Veterans Educational Programs, contact the Office of Veterans Affairs at University Park, PC 130, 554-2305.

Status Certification

The Veterans Affairs Office also verifies the school status of all past and present students for purposes of Social Security, tuition reimbursement, employment, and loan deferrals.

Florida Residency Information

Florida Student Definition

For the purpose of assessing registration and tuition fees, a student shall be classified as a 'Florida' or 'non-Florida' Resident

To qualify as a 'Florida' Resident, the student must:

1. Be a U.S. Citizen, Resident Alien, parolee, Cuban National, Vietnamese Refugee, or other legal alien so designated by the U.S. Immigration and Naturalization Service.

2. Have established a legal residence in this State and have maintained that legal residence for twelve months immediately prior to the start of the term in which the student is seeking Florida resident classification. The student's residence in Florida must be as a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students as defined by IRS regulations, a parent or guardian must qualify), and

3. Submit the following documentation (or in the case of a dependent student, the parent must submit documentation) prior to the last day of registration for the term for which resident status is sought:

a. Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which resident status is sought). The following documents will be considered in determining legal residence:

(1.) Declaration of Domicile

(2.) Proof of purchase of a home in Florida which the student occupies as his or her residence.

(3.) Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment record).

b. Documentation establishing bona fide domicile in Florida which is not temporary or merely incident to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered conclusive evidence of domicile (these documents must be dated at least one year prior to the first day of classes of the term for which resident status is sought):

(1.) Declaration of Domicile

(2.) Florida Voter's registration

(3.) Florida Driver's license

(4.) Proof of real property ownership in Florida (e.g., deed, tax receipts).

(5.) Employment records or other employment related documentation (e.g., W-2, paycheck receipts), other than for employment normally provided on a temporary basis to students or other temporary employment.

(6.) Proof of membership in or affiliation with community or state organizations or significant connections to the State.

(7.) Proof of continuous presence in Florida during the period when not enrolled as a student.

(8.) Proof of former domicile in Florida and maintenance of significant connections while absent.

(9.) Proof of reliance upon Florida sources of support.

(10.) Proof of domicile in Florida of family.

(11.) Proof of admission to a licensed practicing profession in Florida.

(12.) Proof of acceptance of permanent employment in Florida.

(13.) Proof of graduation from high school located in Florida.

(14.) Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bona fide Florida resident, including the age and general circumstances of the individual.

c. No contrary evidence establishing residence elsewhere.

d. Documentation of dependent/ independent status (IRS return or affidavit)

A student can also qualify for 'Florida' residency by one of the following criteria:

1. Become a legal resident and be married to a person who has been a legal resident for the required twelve-month period, or,

2. Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent, or,

3. Be a member of the full-time instructional or administrative staff of a state public school, community college or university in Florida, a spouse or dependent, or

4. Be a dependent and have lived five years with an adult relative who has established legal residence in Florida, or

5. Be a former student at a public institution of higher education who was properly classified as a resident who re-establishes domiciliary status and re-enrolls within a period of twelve months, or,

6. Make a statement as to the length of residence in Florida and qualification under the above criteria.

Financial Aid

The University adheres to the philosophy that a student is entitled to a college education regardless of his or her financial condition. The Financial Aid Program at the University includes scholarships, grants, loans, and employment. Instructions on how to apply for financial aid are listed under Application Procedures for Financial Aid. The Financial Aid Office is located in PC 125, University Park, 554-2431; and in ACI-160, North Miami Campus, 940-5765.

Grants and Scholarships

Grants and Scholarships are monetary gifts based on financial need or merit. Neither type of award requires work or repayment. For most Federal and State grants, students must demonstrate financial need to receive an award.

Pell Grant: This is a federal grant program designed to provide financial assistance to students pursuing their first undergraduate degree. The U.S. Department of Education evaluates the information reported on the application and determines the student's eligibility using a standard formula, passed into law by Congress. The Student Aid Report (SAR) is mailed to the student indicating eligibility status and index number. Students must bring or mail the SAR to the Financial Aid Office, even if denied a Pell Grant. The amount of the award will vary according to the student's enrollment category each term. The Financial Aid Office will determine the grant's dollar value (if any) and include it in the award letter.

(Refer to Eligibility Criteria section to determine eligibility requirements.)

Supplemental Educational Opportunity Grant (SEOG): This grant provides gift aid for a limited number of first-time undergraduate students. Awards range from $100 to $4,000 per year depending upon financial need.

(Refer to Eligibility Criteria section to determine eligibility requirements.)

Florida Student Assistance Grant (FSAG): The FSAG is a state grant which provides awards ranging from $200 to $1,200 per academic year for four years. The grant is available only to first-time undergraduate Florida residents who have resided in the state for at least 24 consecutive months, are citizens or permanent residents of the United States, and can demonstrate financial need.

To be considered, students must complete a Financial Aid Form by the application deadline of April 15 for the following Fall term. Recipients are selected by the Florida Department of Education, Office of Student Financial Assistance, and award amounts are based on the student's financial need and availability of funds.

Florida Undergraduate Scholars (FUS): This program is administered by the Florida Department of Education and provides scholarships to Florida high school graduates who have been bona fide residents of the state for the two years preceding the receipt of the award and plan to attend a Florida college or university.

Applicants must be recognized by the National Merit Scholarship Corporation as scholars or finalists, or have attained a 3.5 GPA on an un-weighted 4.0 scale in high school, and score 1200 or higher on the SAT, or 28 on the ACT. Recipients must enroll as full-time students each term.

Initial year applications may be obtained through high school guidance counselors. Renewal applications are mailed to current recipients by the Florida Department of Education, Office of Student Financial Assistance.

Loans

There are two basic types of loans: long-term and short-term or emergency loans. Long-term loans are low interest awards that must be repaid after the student is no longer enrolled in an institution of higher education. Short-term or emergency loans are awarded on a short term basis and do not carry any interest.

Perkins Loan (formerly NDSL): This federally funded loan is available to undergraduate and graduate students. Undergraduate students may borrow a total of $9,000 during their undergraduate years, while graduate students may borrow up to $18,000 including any loans received at the undergraduate level.

There is no interest on the loan while the student is enrolled at least part-time. The repayment period begins at 5% interest nine months after the student ceases enrollment at an institution of higher education. Maximum repayment time is 10 years and a minimum payment of $30 per month is required.

Borrowers who work in specially designated jobs or geographical areas may have part or all of their Perkins Loan repayment obligation canceled. Borrowers also may be eligible to have their payments deferred or postponed for specific periods of time.

(Refer to Eligibility Criteria section to determine eligibility requirements.)

Guaranteed Student Loan (GSL): This federal loan program enables students to borrow directly from either a bank, a credit union, a savings and loan association, or other participating lenders to help fund their post-secondary education. For new borrowers who seek loans for periods of enrollment beginning on or after July 1, 1988, the interest rate is 8% and increases to 10% beginning with the fifth year of repayment. For students who currently have 7% or 9% GSLs, the interest rate on additional loans will continue to be 7% or 9%.

Depending on the student's need, undergraduate students may borrow up to $2,625 during their first and second years, $4,000 during their third and fourth years, and graduate students up to $7,500 a year. The aggregate amount that undergraduates may borrow is $17,250. The total for graduates is $54,750, including any GSL loans made at the undergraduate level.

Loan repayments begin six to nine months (depending on the interest of the loan) after the student graduates, leaves school, or drops below half-time status.

(Refer to Eligibility Criteria section to determine eligibility requirements).

PLUS Loans and Supplemental Loans for Students (SLS): PLUS loans are for parent borrowers; SLS's are for students. Both loans provide additional funds for educational expenses and, like GSL's, are made by a lender such as a bank, credit union, savings & loan association, and other participating lenders.

5% Perking Loans Repayment Chart

Amount Borrowed	Total Amount Monthly Payments	Number of Monthly Payments	Final Payment	Total Interest	Amount Repaid
$ 500.00	$ 30.00	18	$ 9.30	$ 19.30	$ 519.30
1,000.00	30.00	36	28.87	78.87	1,078.87
1,500.00	30.00	57	5.54	185.84	1,685.54
2,000.00	30.00	79	7.93	347.93	2,347.93
2,500.00	30.00	103	17.34	577.34	3,077.34
3,000.00	31.82	120	31.77	818.35	3,818.35
4,000.00	42.43	120	41.84	1,091.01	5,099.01
5,000.00	52.03	120	53.06	1,363.63	6,363.63
7,500.00	79.55	120	79.42	2,045.87	9,545.87
10,000.00	106.07	120	105.37	2,727.70	12,727.70
12,000.00	127.28	120	127.06	3,273.38	15,273.38

SLS and PLUS loans are disbursed on or after July 1, 1988 will have a variable interest rate, adjusted each year. The interest rate for 88-89 award year will be determined in June 1988.

PLUS enables parents to borrow up to $4,000 per year, to a total of $20,000, for each child who is enrolled at least half-time* and is a dependent student.

Under SLS, graduate students and independent undergraduates may borrow up to $4,000 per year, to a total of $20,000. This amount is in addition to the GSL. (In exceptional circumstances, the financial aid administrator may authorize dependent undergraduates to apply for an SLS.)

PLUS and SLS borrowers do not have to show need, although like all borrowers, they may have to undergo a credit analysis.

SLS and PLUS borrowers must begin repaying interest within 60 days after the loan is disbursed, unless the lender agrees to let the interest accumulate until the deferment ends.

Emergency Loan: This institutional loan program assists students who demonstrate an urgent need for immediate funds. The students must be enrolled as a full-time student in the semester for which the request is being made. The amount loaned can be up to $500 and must be repaid within 90 days.

Applications are available at the Financial Aid Office and loans are approved within 24 hours. Release of funds will occur within five working days of the request.

Short Term Tuition Loan: This is an institutional loan program available to students who are unable to meet the deadline for fee payment.

To be eligible, an applicant must be admitted to a degree program, be enrolled on a full-time basis, and have no outstanding debts to the University. Financial aid recipients are not eligible to receive this loan since their tuition/fees payment can be deferred until their financial aid is disbursed.

Applicants who meet all criteria will be awarded the loan. The amount of award is limited to the student's actual cost of tuition and other required fees. The loan is due 60 days from the first day of classes each semester.(Late registration fees or other penalty charges are excluded from loan.)

Student Employment

The University offers employment opportunities through various sources. In addition to the CWS Program and the CCWEP Program which are based on financial need, other jobs are available on and off-campus and assistance in locating work is provided to any student through the Job Location Development Program.

College Work Study (CWS): This is a federal financial aid program often included in the student's financial aid award. It provides employment opportunities to eligible undergraduate and graduate students. Students awarded CWS funds may work on campus, and an effort is made to assign them to jobs related to their field of study or special interests and skills.

(Refer to Eligibility Criteria section to determine eligibility requirements.)

Florida College Career Work Experience (CCWEP): This state program is available to needy first-time undergraduate students who have been legal residents of Florida for the preceding two years. Students awarded CCWEP funds may work off-campus in career related jobs.

The minimum wage for a CCWEP student is at least the current federal minimum wage. Salary rate is determined according to the type of work, the student's experience, and difficulty of the job.

Job Location Development Program (JLD): The Career Planning and Placement Office operates a Job Location Development Program to help currently enrolled students in locating off-campus part-time employment.

Students seeking work may contact the JLD coordinator in that office for information and assistance.

Other Personnel Services (OPS): On-campus employment opportunities are also available through the University Personnel Relations Department (Employment Office) or through the various University departments.

Caution: Financial aid recipients should be aware that all earnings from non-financial aid employment have to be considered as a resource. To avoid problems, students are advised to consult a financial aid officer prior to accepting a job to determine the effect of employment on the financial aid award.

Eligibility Criteria

To be eligible to receive Federal assistance, students must:

1. Be enrolled at least as half-time undergraduates or graduates in an eligible program of study
2. Be U.S. citizens; U.S. nationals; or U.S. permanent residents or reside in the United States for other than a temporary purpose (supportive documentation is required to verify residency or citizenship status)
3. Maintain satisfactory academic progress in their course of study (Refer to Satisfactory Academic Progress section)
4. Not be in default of any loan or owe a repayment on a Pell Grant, SEOG, or state grant.
5. Demonstrate financial need.

Other Forms of University Assistance

A number of scholarships are made available by the University, private organizations, or individuals for students with academic promise and financial need. Selection of recipients, award amount, and eligibility criteria are determined by the University, or the donor(s), or both.

Application information and deadlines can be obtained through the Financial Aid Office.

University-Wide Programs

To be considered for a variety of University scholarships, students are required to file a Need Analysis Form (see Application Procedures for Financial Aid)

Army ROTC Merit Scholarship: Available to full-time freshmen or sophomores who are U.S. citizens, medically qualified, and under 25 years of age on June 30th of graduation year. Applicants must be willing to serve as Army officers on active duty for four years or on Reserve/National Guard duty for eight years after graduation. Age waiver possible for veterans or current Reservists. Minimum GPA depends on academic major.

Scholarships pay full tuition, flat rate for books and fees, and up to $1,000 per year substinence for two or three years depending on number of academic years remaining. No obligation is incurred by applying. Contact the Department of Military Science at 554-2892 or 284-4673.

Athletic Scholarships: Athletic awards are made upon recommendation of the Athletic Department to students who meet the established qualifications for such awards. These awards are based on athletic and academic ability. Interested students should contact the Athletic Department at (305) 554-2756.

Graduate Assistants Matriculation Fee Waivers: These waivers may be awarded primarily to Graduate Assistants who are to be employed for 0.25 FTE or more for at least one semester during the academic year.

Tuition Waivers: Tuition waivers may be awarded to Non-Florida residents and foreign students to help defray a part or all of the out-of-state portion of their tuition. Awards are made to students who demonstrate high scholastic achievement, or to students who have special skills or talents.

Faculty Scholars Program: Outstanding high school graduates are selected each year for the distinguished Faculty Scholars Program. Scholarship awards are based on academic merit and are renewed each semester contingent upon the student maintaining a minimum 3.5 GPA. Eligibility criteria include a minimum score of 1200 on the SAT or 27 on the ACT and an average 3.5 high school GPA. For further information contact the Office of Undergraduate Studies at 554-2892.

Music Scholarships: Scholarships are awarded to talented students through audition and established criteria for such awards. These scholarships are made upon recommendation of the faculty of the Music department.

Call 554-2896 for audition dates and further information.

Theatre and Dance Scholarships: Scholarships are awarded to talented students through audition and established criteria for such awards. Those scholarships are made upon recommendation of the faculty of the Theatre and Dance department. Call 554-2895 for audition dates and further information.

PRIDE Scholarship: This scholarship is available to any of the four finalists of the Program to Recognize Initiative and Distinction in Education (PRIDE) competition for high school seniors in the state. Free tuition for one year is awarded, renewable for an additional three years or until requirements for a baccalaureate degree are completed, whichever comes first. Students must maintain a 3.0 GPA to renew the scholarship.

Graduate Scholarships and Fellowships: Graduate scholarships and assistantships are provided to applicants who demonstrate qualifications required for admission to graduate programs. This financial aid may be available in accord with various criteria such as: outstanding academic potential and prior achievement, demonstration of financial need, and minority recruitment.

Doctoral fellowships, research assistantships, and teaching assistantships are awarded competitively for doctoral programs in Computer Science, Business Administration, Economics, Education, Psychology and Public Administration. Student aid may be available for other doctoral programs as new programs are established.

Master's degree scholarships, research assistantships, and teaching assistantships are available in numerous programs. Students may also gain part-time employment to support studies and living costs. Student financial support is also provided by external agencies. For example, the Florida Endowment Fund provides doctoral fellowships for students who are Black American citizens. For more information, contact the individual academic department.

Brain Bowl Scholarship: Two scholarships in the amount of $300 per term for two years will be available to members of the state championship team who are accepted for enrollment at the University. The maximum award will be $1,200 each, over the two year period. Renewal for the second year will be based on satisfactory academic progress.

Golden Drum Scholarship: Upon recommendation of the Achievers of Greater Miami, Golden Drum committee, the University will offer full tuition scholarships to deserving black high school seniors with a GPA of 3.0 or higher.

Special Scholarships

Charles E. Perry Graduate Scholarships: Available to full time graduate students with a 3.5 GPA or higher and financial need.

Chase Federal Savings and Loan Scholarship: Available to undergraduate full-time students with a 3.0 GPA or higher and financial need, who are residents of Dade, Broward, Palm Beach, or Martin counties. Edna Porter Scholarship: Available to senior students majoring in Apparel Management with a 2.7 GPA or higher.

Pearce Memorial Scholarship: Available to full-time students majoring in plant sciences, with financial need and good scholastic ability. **Elders Forum Scholarship:** Available to Freshmen students with financial need.

Felix Memorial Scholarship: Available to undergraduate and graduate majors in Music with financial need.

Frank R. MacNeill Memorial Scholarship: Available to U.S. graduate or undergraduate students majoring in Insurance or Marketing with financial need and a 3.0 GPA or higher.

Isadore Hecht Scholarship: Available to graduates of Dade or Broward high schools who have completed 27 undergraduate or 10 graduate semester hours towards a degree at the University. The students must be enrolled in the Colleges of Arts and Sciences or Business Administration, or the Schools of Education or Public Affairs and Services.

Jane D. Cope Scholarship: Available to needy non-U.S. citizens, or children of migrant workers, Miccosukee and Seminole Indians.

Judith Seymour Memorial Scholarship: Available to students enrolled in the College of Arts and Sciences who have completed 30 semester hours at the University and are interested in historic preservation.

Lynne A. Cohen Memorial Scholarship: Available to junior or senior, full-time Physical Therapy majors with 3.0 GPA or higher and financial need. Mayor Henry Milander Public Service Scholarship: Available to upper level or graduate students majoring in Public Administration or Criminal Justice who have graduated from Hialeah, Miami Lakes or Miami Springs high schools. Must be full-time students, maintain minimum 3.0 GPA and have civic leadership qualities.

Mickey Dane Memorial Scholarship: Available to Industrial Technology students in Career Pilot/Aviation Administration or Air Traffic Controller programs who have minimum 2.5 GPA and demonstrate financial need. Preference given to Eastern Airlines employees or their children.

Dr. Pablo Ruiz-Orozco Scholarship: Available to students seeking graduate degrees in Hispanic Studies who are natives of Ciego de Avila, Cuba, or their descendants. Must have a minimum 3.0 GPA and demonstrate financial need.

Ricardo Nunez Scholarship Fund: Available to full time graduate or undergraduate students with good academic progress and financial need.

Sarah and Solomon Rosenberg Scholarship: Available to black U.S. citizens (native Americans) undergraduate upper-division students, majoring in Engineering, Computer Sciences, or Business who demonstrate academic ability and have financial need.

Senator Gwen Margolis Scholarship: Available to black students majoring in Communication who demonstrate outstanding academic performance and financial need.

The Two Hundred Society Scholarship: Available to female students. Applicants must be U.S. citizens, residents of Dade County, full-time students, demonstrate financial need, have a minimum 3.0 GPA, have upper-division standing with a minimum full year of studies remaining, and enroll in at least one three-credit Women's Studies course.

Other scholarship opportunities are available through individual academic departments. Information about additional externally-funded scholarships is available in the Financial Aid Office.

Application Procedures For Financial Aid

Listed below are all the documents required to apply for financial assistance, as well as procedures for submission of application. The deadline date to receive priority consideration for available funds is April 1 of the year preceding the academic year of enrollment.

Need Analysis Document: Students interested in all forms of aid must complete the Financial Aid Form (FAF) and mail it to College Scholarship Service (CSS) with the appropriate fee.The CSS will perform a need analysis based on the information provided on the FAF and send a copy to the University. (Undergraduate Florida residents applying before April 15 should request that a copy of this report be sent to the Florida Department of Education). Students who wish to apply only for the Pell Grant must file a different application called the Application for Federal Student Aid (AFSA) instead of the FAF.

Financial Aid Application (FAA): This form must be completed by all students and mailed to the Financial Aid Office at their primary campus, University Park or North Miami Campus. Broward Center students may submit their forms to either campus.

Student Aid Report (SAR): All first-time undergraduate students are required to apply for the Pell Grant. Eligible students will be mailed a three part SAR by the Pell Grant processor. If the applicants are ineligible or need to make corrections, they will receive a two part SAR. The complete set must be forwarded to the Financial Aid Office, regardless of eligibility.

Financial Aid Transcript (FAT): All new students who have attended another institution of higher education must submit a Financial Aid Transcript for each institution attended, whether or not aid was received.

Income Tax Return: All students must submit an official (signed) copy of their (and spouse) previous year Income Tax Return (1040, 1040A, or 1040EZ) to the Financial Aid Office. Students filing as dependents must also provide an official (signed) copy of their parents' tax return. The applicant's name and social security number should be written at the top of the Parent's Income Tax Form to insure proper student identification. (Students and/or parents who did/will not file must submit an Income Certification Statement for IRS Non-Filers available in the Financial Aid Office.)

PLUS and SLS Applicants: A separate application is required in addition to the other documents. The Financial Aid Office will mail all completed loan applications directly to the student. Unless the applicant specifies a particular lender, he/she must make their own contacts with lenders regarding the completed application.

Additional information may be requested by the Financial Aid Office before issuing an award package.

Note: The University will not begin processing financial aid applications until all eligibility criteria are met and application forms are properly completed. It is the student's responsibility to comply with all requirements. All forms and additional information may be obtained from the Financial Aid Office on either campus.

Notification of Award

Once a need assessment has been completed, a notice of award will be mailed to the applicant.

It is the student's responsibility to review the award and all its conditions prior to accepting the aid offer. The student must then return the signed copy of the award along with all other required documents within 15 days or make an appointment with a financial aid officer to discuss any concerns he/she may have. If the student fails to do this, the award will be canceled and those funds will be offered to other eligible applicants.

Disbursement of Aid

All financial aid recipients must go to the Cashier's Office to have their class schedule validated prior to the date shown on the Fee Due Notice received during registration. Failure to do this will result in the cancellation of all classes for the semester.

Financial aid checks will generally be available seven to ten days after the last day to add/drop courses each semester.

Tuition, fees, housing fees, and other outstanding debts will be deducted before releasing any funds to the student.

Satisfactory Academic Progress

In keeping with guidelines set by the U.S. Department of Education, the Financial Aid Office must determine if a student is maintaining satisfactory progress for the receipt of Title IV student financial aid (Pell Grant, Supplemental Educational Opportunity Grant, College Work Study, Perkins Loans, Guaranteed Student Loan/PLUS Loan, SLS Loan, and State Student Incentive Grant programs). This rule applies regardless of the student's previous financial aid history.

The student must show incremental progress in his or her coursework along the continuum of attendance toward degree completion, as well as remain in good academic standing to be eligible for aid.

Students who fail to meet the satisfactory progress criteria will be issued warnings, placed on probation, or have all aid suspended. If a student disagrees with the Financial Aid Office's decision, he or she will have the right to appeal. (The complete Satisfactory Progress Policy statement is available in the Financial Aid Office and one copy is provided to each financial aid applicant along with the notification of their financial aid eligibility.)

Financial Aid Refunds/Repayments

When a student receiving financial aid withdraws or drops below the required hours for receipt of that aid, the amount of refund due (according to the University Refund Policy) is refunded back into the financial aid programs from which the student received money. In addition, a portion of the financial aid received as cash disbursement for non-instructional costs must be repaid by the student to the University.

The complete Refund/Repayment Policy Statement and distribution formulas are available in the Financial Aid Office.

Students' Rights and Responsibilities

As a recipient of financial aid, there are certain rights and responsibilities of which students should be aware. By knowing them, they will be in a better position to make decisions which could influence their educational goals and objectives.

Students have the right to know:

1. What financial aid programs are available at Florida International University
2. The process and procedures that must be followed in order to be considered for financial aid
3. The criteria used in selection of recipients, and the method used for calculating need
4. The various programs in the financial aid award and how the need was determined
5. The refund and payment policy at the University
6. How the Financial Aid Office makes its determination on such questions as student progress, the appeal process, and other decisions
7. The terms, including repayment, of any loan allocated by the University.
8. What special facilities and services are available to the handicapped

Students are responsible for:

1. The timely and proper completion of all necessary forms by the established deadlines, and the accuracy of any information provided to the University in the financial aid application
2. Promptly providing any additional information requested by the Financial Aid Office
3. Keeping the Financial Aid Office informed of any changes in address, name, marital status, financial situation, or any change in their student status
4. Reading and understanding all financial aid forms sent to them and/or signed by them and keeping copies of the forms
5. Notifying the Financial Aid Office of any scholarship, grant, or other resources made available to them from non-University sources while they are receiving financial aid
6. Notifying the Financial Aid Office if they withdraw from the University or change their enrollment status. Some repayment may be expected on a prorated basis. Future aid may be suspended if arrangements for payment are not made with the Financial Aid Office
7. Maintaining satisfactory progress in order to be considered for financial aid
8. Visiting the Cashier's Office for an exit interview if they have received a Perkins Loan or GSL and do not plan to return to school the following semester
9. Re-applying for aid each year.

Student Fees and Student Accounts

Fees

Registration and tuition fees are established by the Board of Regents as required by the Florida Legislature. These fees are subject to change without notice. The current credit hour fee schedule is as follows:

Credit Hour Fees

	Undergraduate Lower Division	Upper Division	Graduate Thesis & Dissertation
Total in-state	$33.43	$34.12	$61.41
Total out-of-state	$116.38	$121.27	$186.36
Student Fees			
Athletic Fee	$ 10.00	$ 10.00	$ 10.00
Health Fee	$ 23.30	$ 23.30	$ 23.30

The Health and Athletic fees are non-refundable fees assessed each term. The Health fee is not applicable to students enrolled only in off-campus courses or external degree programs.

Audit registration fees are the same as the above fees, except that no assessment will be made for the out-of-state portion.

A schedule of registration and tuition fees for all programs is published prior to each semester and can be obtained at the Office of Registration and Records. Since fees often change in the fall semester the above fees should be used for information purposes only. The semester bulletin will contain the most accurate fee information.

Accuracy of course information on fee schedules is the responsibility of the student. The schedule should be checked prior to fee payment.

Fee Waivers

Students using a fee waiver as part of the fee payment must present the original and the student copy to the Cashier's Office at the time of payment, on or before the last day to pay fees. Students who are responsible for a portion of their fees in addition to the fee waiver will be required to pay their portion before the fee waiver is applied.

University and State employees must register only on the day established in the official University calendar for State employee registration if they wish to use the State employee fee waiver to pay their fees. Prior to closing on the day for State employee registration a properly completed and approved waiver form must be presented at the Cashier's Office. If a State employee registers prior to the announced date for State Employee Registration there is no provision for transfer of fee liability.

Note: No refunds will be processed for employees who have registered and paid prior to the State Employee Registration Day and wish to use the fee waiver.

Fee Payment

Fees may be paid at the Cashier's Office at University Park, PC 120, or at North Miami ACI 140. Broward students may pay at the Broward Community College Cashier's Office, by mail or at the Cashier's Office at University Park or North Miami. There is a night drop outside the Cashier's Office for payment by personal check, cashier's check or money order. Payment is also accepted by mail. The University will not be responsible for cash left in the night drop or sent through the mail.

Financial Aid Students

All financial aid recipients have their class schedule validated at the Cashier's Office prior to the date shown on the Fee Due Notice received during registration. Failure to have the schedule validated will result in the cancellation of all classes for the semester. The validation process cannot be handled through the night drop or by mail, but must be done in person.

Fee Liability

A student is liable for all fees associated with all courses in which he/she is registered at the end of the drop/add period. The fee payment deadline is 3:00 p.m. on the last day for drop/add as published in the official University calendar. If fees are not paid in full by the published dates, all courses will be cancelled and any money paid will be lost.

Note: Registration is nor complete until all fees are paid in full.

Sundry Fees

Application fee $15.00
Non-refundable

Vehicle Registration Fee
Non refundable. Annual vehicle registration fee is applicable to all persons operating or parking a motor vehicle on campus. Upon payment of the registration fee, all vehicles must be registered at the University Public Safety Department. A parking decal is required for all vehicles. Parking and traffic regulations are strictly enforced.

Parking Registration Fees:	
Student	**$10.00**
Replacement or Second Vehicle Decal	$1.00
Student Decals Purchased after May 1st.	$5.00
Citation Fines	
Decal Fraud	$50.00
Handicap/Wheel Chair Space	$50.00
Hazardous Parking	$15.00
Other	$5.00
Late Charge	$5.00
Library Fines	
per book per library hour	$0.25
Overdue Reserve Books per book per library hour	$0.25

Late Registration Fee $25.00
Non-refundable. Assessed to all students who register after the official registration period or fail to pay full fees by the established deadline.

Late Payment Fee $25.00
Non-refundable. Assessed to all students whose registration has been canceled from non-payment of fees. This fee is in addition to the late registration fee.

Intern Certificate of Participation per hour $3.75

Note: These fees are subject to change without notice. Additional fees may be added at any time.

Checks

The University will accept personal checks for amounts due to the University. These checks must be in the exact amount due only. The Cashier's Office will not accept checks above the amount due or for cash. State law requires that a service fee of $10 or 5% be assessed on a check returned unpaid by the bank for any reason. Returned checks will be assigned to a agency for collection if not promptly paid. Returned checks on student accounts will result in cancellation of classes and will require petition for reinstatement.

The Cashier's Office will not accept another check on any student's account which has had two previous checks returned by the bank.

Refunds

A refund of tuition fees will be made if a student withdraws completely from the University prior to the end of the Drop/Add Period. If the University cancels a course, a full refund of fees will be made for that course.

For students who have completed registration and have paid fees due, a refund of 25 percent of total fee paid, less a bonding fee, will be made if the student totally withdraws from the University prior to the end of the fourth week of classes.

In the following exceptional circumstances, a full refund of fees paid, less a bonding fee, will be made upon presentation of proper documentation:

Death of a student: Death certificate required.

Involuntary call to military duty: Copy of orders required.

Refunds will be made upon receipt of a proper application through the Cashier's Office.

Appeals for tuition refunds must be submitted in writing to the Cashier's Office within a two-year period. There are no exceptions to this University policy. Processing of refund applications will begin after the end of the drop/add period each semester.

Past Due Accounts

All student accounts are due and payable at the Cashier's Office, PC 120, University Park, or ACI- 140, North Miami Campus, when the charges are incurred.

Delinquent accounts will be considered sufficient cause to prohibit registration, graduation, release of transcripts, or release of diplomas. The University is not able to grant credit or time payments for any fees. Financial aid is available to those qualifying through the Financial Aid Office. A limited number of short term loans are available to full-time enrolled students who may experience problems in meeting fee payment due dates.

The University reserves the right to assign any past due account to an agency for collection. When an account has been assigned the authorized collection agency fee will be added to the University charges for collection.

Deadlines

Students are reminded that deadlines are strictly enforced. The University is not able to grant credit or to extend the fee payment period beyond the time set in its official calendar. The University does not have the authority to waive late fees unless it has been determined that the University is primarily responsible for the delinquency or that extraordinary circumstances warrant such waiver. Financial aid is available to those qualifying through the Financial Aid Office. A limited number of short-term loans are available to full-time students who may experience difficulty in meeting fee payment due dates.

Academic Affairs

The Office of Academic Affairs plans and administers the instructional programs of the Colleges and Schools of the University. Matters affecting faculty, curriculum and the development of undergraduate and graduate degree programs fall within its purview. This office also supervises academic support programs, such as Continuing Education, the Libraries, Instructional Media Services, Sponsored Research and Training, FAU/FIU Joint Center for Environmental and Urban Problems, Latin American and Caribbean Center, Center for Economic Education, Institute for Judaic Studies, Institute for Public Policy and Citizenship Studies, The Art Museum, Multilingual-Multicultural Studies Center, Southeast Florida Center on Aging, Southeast Multifunction Resource Center, and the Women's Studies Center.

Providing direct service to students outside the classroom, and influencing the instructional programs, the following units also report to the Office of Academic Affairs: the Office of Undergraduate Studies and the Division of Graduate Studies.

Responsible for all the academic units, the chief academic officer is the Vice President for Academic Affairs. The Vice President also serves as liaison to the Florida Board of Regents for academic matters, and as a member of the University Executive Staff, the Vice President leads in the overall planning and direction of the University.

(For detailed information on the International Banking Center, Institute for Public Policy and Citizenship Studies, FAU/FIU Joint Center for Environmental and Urban Problems, Latin American and Caribbean Center, Center on Aging, Center for Economic Education, Institute for Judaic Studies, and Women's Studies Center refer to the Center and Institute Section.)

Office of Undergraduate Studies

The Office of Undergraduate Studies is responsible for undergraduate program activities that span more than one academic unit. Included in these activities are academic advising, CLAST counseling and academic preparation, Faculty Scholars, Core Curriculum and General Education requirements, and ROTC. The office is located in PC 115, University Park, 554-2892; and ACII-130, North Miami Campus, 940-5754.

Division of Graduate Studies

The Office of Graduate Studies is responsible for: (1) the direction and support of all University graduate programs; (2) the development of and compliance with University graduate policy, procedures, and planning; (3) graduate financial aid, acquisition and distribution; (4) University-clientele linkages for development support and productivity; (5) graduate program external advisory councils; (6) graduate program review and accreditation; (7) budgetary and facilities for graduate programs; and (8) planning, development, budgetary support and external resources.

The Office is under the direction of the Dean of Graduate Studies.

Applicants and students may gain graduate information by visiting the Office in PC 538, University Park, 554- 2455; or Room 216, Building 9, Broward Community College/ Central Campus, 776-1240.

Libraries

The University Libraries are housed in the Athenaeum (AT) at University Park, and in a new Library building (LIB) on the North Miami Campus.

The total library collection comprises 750,197 volumes, in addition to substantial holdings of federal, state, local, and international documents; maps; microforms; music scores; newspapers; institutional archives; and curriculum materials. The Library subscribes to 6,843 scholarly journals and other serials.

A computerized catalog of library holdings provides a listing of materials in both FIU Libraries, and other libraries in the State University System. The bulk of the collection is housed in open stacks.

Classification of library resources is according to the Library of Congress system, except for some of the documents and special collections (e.g., U.S., Florida, and U.N. documents, archives, etc.) which are arranged by their own classification systems and have separate public catalogs.

In keeping with the University's commitment to day and night operation, the libraries are open when the University is in session and during vacation periods. For exact library hours, please consult the posted schedules. Staff members are always available at the Public Service desks to assist students and faculty in their use of the library.

Consortium Library Privileges

Currently registered students, faculty, and staff may use the libraries of any of the nine campuses of Broward and Dade Community Colleges, FIU, St. Thomas University, and Nova University.

Students can apply for, and at the discretion of the lending library, obtain a pass (CLASS card) that will give them library charge privileges at all consortium campuses. This involves obtaining a CLASS card at one of the FIU libraries and presenting it to the library where the circulation privilege is desired. A state-of-the-art system of interlibrary loan links the libraries with others throughout North America. It includes the use of telefacsimile for time-critical requests.

Instructional Media Services

Instructional Media Services specializes in the development, production, and utilization of various types of audiovisual and communication media for educational purposes. The services offered are encompassed by five departments:

1. Equipment Distribution and Scheduling provides a large variety of educational audiovisual equipment for use by faculty and staff.
2. Graphics Services prepares artwork, graphs, illustrations, charts, and posters for faculty and staff.
3. Production Resource Center is a "do-it-yourself" media and graphic arts production lab, providing technical assistance to faculty, staff, and students, and instruction in the development and use of communication media and technology.
4. Photography Services provides still photographic support and services to faculty and staff for educational and University promotional purposes.
5. Instructional Television Production and Programming produces instructional media programs (video and audio recordings, both in-studio and remote, and multi-media programs) for faculty and staff.

All of these departments are located on the University Park. North Miami Campus Media Services maintains an Equipment Distribution and Scheduling Department (ACI-193), and a Production Resource Center in LIB-150. Services not available on the North Miami Campus can be obtained through the appropriate office on the University Park. For more information contact 554-2812, AT 136, University Park; and 940-5741, ACI-193, North Miami Campus.

Consortium Media Privileges

Faculty, staff, and students can use the audiovisual services on any campus of the Consortium. A-V materials and equipment cannot be borrowed.

Continuing Education

Carolann W. Baldyga, *Acting Dean*
Maryellen Canfora, *Assistant Dean*
Shelton T. Elks, *Acting Director,*
Off-Campus and
Weekend Credit Courses
Barbara S. Saucedo, *Acting Director,*
Conferences and Short Courses

The University extends credit and noncredit learning opportunities through the Division of Continuing Education. Courses of instruction are developed and offered in a variety of formats. These include conferences, seminars, short courses, workshops, lecture series, certificate programs and courses for academic credit. Learning opportunities are made available at locations throughout Dade, Broward and Monroe counties, the University's campuses and abroad through special arrangements. Instruction can be designed to serve specific needs and respond to requests from community groups, professional organizations, businesses and industry.

The Division's central office is located in ACI-100, North Miami Campus, 940-5669. Offices and services are also available in PC 113, University Park, 554-2490.

Administered through the Office of Academic Affairs, the Division of Continuing Education carries out the following programs: Off-Campus and Weekend Credit Courses and Conferences and Short Courses.

Off Campus and Weekend Credit Courses

Over 230 courses for academic credit are offered off-campus and on weekends each year through the University's eight Colleges and Schools. Any course listed in the University Catalog may be conducted at a suitable location in Dade, Broward or Monroe counties. Courses are regularly conducted at hospitals, banks, community schools, and other public and private facilities appropriate for educational delivery. An individual, business, agency or association can request that a specific course or degree program be offered.

Registration for Continuing Education credit courses may be accomplished at the office of Registration and Records at University Park and North Miami Campus, and the University's Broward Community College, Central Campus office. Students may also register at the first class meeting.

Sponsored Credit Institutes are contract agreements through which an employer, public agency, or professional organization collaborates with the University to provide credit courses and degree programs for its constituents. These educational enhancement benefits are arranged to serve the needs of a designated group of individuals at a location and time convenient to them.

For information on how to request a course or to find out more about educational opportunities available through the Department, call 940-5653 in Dade, and 463-2790 in Broward.

Conferences and Short Courses

Noncredit programs to develop professional competence, increase business skills, and provide personal enrichment are offered through short courses, workshops, seminars, and certificate programs. Local, regional, national and international conferences are coordinated in conjunction with the University's goals and objectives.

Noncredit program information is published each semester by the Division and may be requested at the Division's offices at University Park and North Miami Campus, or by telephone, 940-5669 (Dade and Monroe), 463-2790 (Broward). Registration is initiated by mail, at the above locations, or at the first session of each program on a space available basis.

Certificate Programs

Legal Certificate Program: Included are the Legal Assistant, Advanced Legal Assistant Studies, Legal Certification Review, Legal Secretarial Studies, and Law Office Administration. The objective of all programs is to develop occupational competence through practical and substantive instruction.

The Legal Assistant curriculum consists of core courses which meet in the evenings supplemented by monthly Saturday seminars, and an intensive program which meets only on Saturdays. Practitioners completing a course or seminar may request CLA continuing education units from the National Association of Legal Assistants.

Certificate for Professional Travel Agents: This comprehensive six-month course develops skills required in the transportation industry with emphasis on the travel agency profession. The program offers a combination of academic exercise, practical application, and on-the-job training to develop desired qualifications. Certain phases of the program are highlighted by field trips to provide firsthand knowledge of travel industry suppliers.

Professional Secretary Certification Program: This in-depth 30-week course is designed to sharpen the skills and significantly increase the knowledge of individuals who are presently employed as secretaries or who wish to pursue a secretarial career. Coursework and seminars will prepare the students for the examination leading to the Certified Professional Secretary (CPS) designation.

Independent Study by Correspondence
The State University System offers a program of over 140 courses with instructors drawn from the University of Florida, Florida State University, and the University of South Florida. The program is administered by the Department of Independent Study by Correspondence, University of Florida, 1938 West University Avenue, Gainesville, Florida 32603, (904) 392-1711.

Sponsored Research and Training

Thomas A. Breslin, *Vice Provost and Director*
Catherine F. Kennedy, *Associate Director*

The Division of Sponsored Research and Training serves the research and training needs of interested faculty by providing timely information on the availability of local, state, and federal program support. The attraction of these funds to the campus provides an opportunity to better serve the needs of the people of Florida through services not regularly funded by the Legislature.

Among the major goals of the Division of Sponsored Research and Training are the following: to help stimulate faculty and staff interest in research and training projects; to assist the faculty and staff in obtaining funds for research and training projects; and to provide technical assistance to faculty and staff who manage contract and grant programs for the University. For more information, contact 554-2494.

The Art Museum

Dahlia Morgan, *Director*
William Humphreys, *Curator and Coordinator of University Collections*

The Art Museum of the University has served the South Florida community for the last seven years exhibiting shows of local and national importance. Exhibitions from outside the University and the area are intended to display the finest available and affordable examples of contemporary and historical art. These shows are obtained from a variety of sources, primarily professional organizations and lending institutions, individual artists, commercial galleries, and other educational institutions.

The types of exhibitions displayed directly benefit not only the University community, but also the public. Attendance records show that approximately 200 people per day visit the facility and come from Dade, Broward, Palm Beach, and Monroe counties, for the most part. The Museum is open six days a week and one evening.

The Art Museum, which occupies a 2,500 square foot area on the University Park, opened with an internationally acclaimed exhibition of *Contemporary Latin American Drawings* in April, 1977. Since that date many exhibitions have been displayed including: *Alberto Giacometti, Draftsman and Sculptor; The Texturology Series of Jean Dubuffet; Public Relations: Photographs by Garry Winogrand; Mira, Mira, Mira, Los Cubanos de Miami; Alfred Stieglitz, 1894-1934; William Wiley; A Collector's Eye: The Olga Hirshhorn Collection; Miriam Shapiro, A Retrospective: 1953-1980; Neil Welliver; Treasures of the Norton Gallery; Manuel Neri; Realist Watercolors; English Naive Painting; Michael Graves Exhibition; Marsden Hartley Exhibition; Anxious Interiors; American Art Today: Still Life;* and nationally acclaimed *Marcel Duchamp Exhibition.*

The Museum has continued to enhance its exhibition program with a lecture series which has included many of the exhibiting artists and scholars, museum curators, and others who have been involved with the particular exhibition. The highly-acclaimed Critic's Lecture Series, sponsored by the Museum, has included: Germaine Greer, Robert Hughes, John Cage, Tom Wolfe, Carter Ratcliff, Susan Sontag, Linda Nochlin, John Canaday, John Simon, and Michael Graves.

The Museum is operated by the Director, the Coordinator of University Collections, and a staff made up partially of University students working through an internship program.

Student Affairs

It is the mission of the Division of Student Affairs to provide services and implement programs which foster the intellectual, social, emotional, physical, and moral development of students. Programs and activities provide opportunities for self-awareness, leadership training, awareness of cultural diversity, and a sensitivity to social issues and concerns in ways that teach students and encourage integration of experiences from the classroom with experiences outside of the classroom. Services are provided to assist students and support the academics mission of the University.

The Division is comprised of the following departments and programs: Career Planning and Placement, Campus Ministry, Counseling, Disabled Student Services, Intercollegiate Athletics, International Student Services, Minority Student Services, Recreational Sports, Student Activities/Unions, Student Development Services, University Housing, Student Judicial Affairs, Wellness Programs, Admissions, Financial Aid, Registration and Records, and Registrar Support Services.

Student Affairs offices are located at University PArk on the second and third floors of University House, on the first floor of PC, and the Modular Building on the west side of the campus. On the North Miami Campus, offices are located in the Student Center Building.

Career Planning and Placement

Career Planning and Placement develops programs that relate to success in a student's career life planning process. The Center houses three programs: Career Placement, Cooperative Education, and the Job Location and Development Program.

Career Placement

Career Placement assists students with career choice selections and employability skills development. Emphasis is on employer identification, resume/letter writing, and employer interviewing skills. On-campus interviews with prospective employers are scheduled, and the office maintains notebooks listing full-time career level positions. Students are encouraged to use SIGI, a computerized career information and guidance support system, to read the Career Column in the student newspaper, The Sunblazer, and to review the employer information available in the Career Library.

Cooperative Education

Cooperative Education allows students to alternate semesters of full-time paid employment for which academic credit is earned with semesters of full-time study. Students can obtain information about the program from the Career Resources Center.

Job Location and Development Program (JLD)

The JLD Program is designed to provide part-time, full-time, and summer employment to students. This program allows students to gain work experience in their major field of study, as well as to help them defray the cost of higher education.

The Center's offices are located in UH 340, University Park, 554-2423, SC 264, North Miami Campus, 940-5813, and Building 9, Room 224, Broward Center, BCC Campus, 474-1404.

Counseling Services

Counseling Services offers a variety of individual and group services and programs designed to enhance and facilitate emotional well-being. Personal counseling is provided for problems with anxiety, depression, family or relationship concerns, and feelings of inadequacy, as well to assist in the development of coping and interpersonal skills. Career/lifestyle counseling is available to provide assistance with career-life planning, including individual exploration of interests, options, abilities, needs, and goals. In addition, workshops and seminars are offered on topics related to mental health. All services are provided at no extra cost to students.

Complete confidentiality is assured and information will not be released without the student's written permission. Department offices are located in UH 340, University Park, 554-2434; and SC 260, North Miami Campus, 940-5813.

Disabled Student Services

Disabled Student Services provides information and assistance to students having disabilities and who are in need of special accommodations. Services are available to students with visual, hearing, speech, physical, and learning disabilities; chronic health problems, mental or psychological disorders, and temporary disabilities. Services include the counseling, coordinating classroom accommodations, provision of special equipment, notetakers, readers, interpreters, adapted testing, special registration, and University and community referrals. Support and assistance in overcoming architectural, academic, attitudional, and other barriers which the disabled students my encounter is provided. Students who need special assistance must request the services, identify their disability, and provide documentation to verify the disability and need for services. All records are kept confidential within the Office of Disabled Student Service.

Educational opportunities may be enhanced if students seek assistance. For information or to schedule an appointment, contact the office at 554-3532, UH 340, University Park, or 940-5813, SC 261, North Miami Campus.

Intercollegiate Athletics

The University is a member of the National Collegiate Athletic Association. The women's program consists of basketball, volleyball, soccer, golf, tennis, and cross country. The men's program includes basketball, soccer, baseball, golf, tennis, and cross country. Having competed successfully at the Division II level since 1972, as of September 1987 the University now competes at the Division I - AAA level.

Financial Aid is available in all sports offered by the University and both freshmen and transfer students are recruited for the University's 12 athletic teams. Team membership is open to all full-time students and shall be decided in a manner which ensures that discrimination does not occur based on race, sex, national origin, marital status, age or handicaps in otherwise qualified students within the rules and regulations of the NCAA. Athletics facilities are excellent. Both the baseball and soccer fields are lighted and have a seating capacity for 1,500 spectators.

FIU students are admitted free of charge to all regular season home events upon presentation of a valid University ID card.

For more information, contact the department at 554-2756.

Sunblazer Arena

The Sunblazer Arena is the seventh major building constructed at University Park and serves as the base for University programs in physical education, athletics, and recreation.

A seating capacity for 3,600, racquetball courts, basketball courts, and auxiliary court area, and meeting rooms make this arena a multi-purpose facility.

The arena is open to students, faculty, staff, and alumni with valid University ID cards. It is available also for rental by both University and community groups.

For additional information on operating hours and fees, contact 554-2900.

Campus Ministry

The Interfaith Campus Ministry serves as a center for student groups involved in a variety of activities. Professional representatives from various faiths are available for personal appointments. In addition, individual denominations sponsor campus-wide programs under the auspices of this unit. Some of these activities include worship, Bible study, study groups, and social gatherings, and cultural outings.

The Offices are located in MO-1, University Park, 554-2215; and SC 265, North Miami Campus, 940-5813.

International Student Programs and Services

The International Student Office provides assistance for students regarding immigration regulations and procedures as they relate to visa status. The staff also provides counseling and advisement with academic, personal and financial concerns, and serves as a liaison to academic and administrative departments throughout the University. In addition, international and inter-cultural programs are conducted to assist students in adapting more effectively to the University community and to living in Miami.

The Office plans and implements an Orientation for new international students each semester. An active International Student Club collaborates with the Office in organizing various social activities. The Club's programs enable the students to participate in the international dimension of the University and provides opportunities for involvement in the greater Miami educational community.

Literature on travel and study programs abroad is available for interested students.

The International Student Department is located in UH 340, University Park, 554-2421; and in SC 264, North Miami Campus, 940-5813.

Minority Student Services

The Office of Minority Student Services provides programs and activities to support minority students of the University. To increase the retention of minority students, this office provides personal counseling as it relates to academic performance, implements an early alert system for students on academic warning or probation, and provides assistance in the academic reinstatement process for those students who have been dismissed.

All minority students, both current and potential, are encouraged to take advantage of the services provided by this office.

Department offices are located in UH 331, University Park, 554-2436; and SC 265, North Miami Campus, 940-5817.

Orientation

Coordinated by the Division of Student Affairs, the Orientation program is designed to assist new students in understanding all aspects of the University environment.

New freshmen, transfer, and graduate students are strongly urged to attend an orientation program before their first term of enrollment. Several orientation sessions are scheduled each Summer Term and at least one session is offered before Spring and Summer Terms. Information about the orientation program and related services is mailed to all newly admitted students.

Recreational Sports

Recreational Sports provides students an opportunity to participate in a variety of intramural sports and recreation activities in order to improve physical fitness, to extend leisure time skills, and to develop a lasting interest in recreational endeavors.

Intramural sports are increasing in number and participation as the recreation program grows. Presently, there are six intramural sports: bowling, basketball, flag football, golf, soccer, softball, co-rec softball, volleyball.

A University Park Fitness Center, equipped with a complete line of Nautilus machines, is located on the west side of campus in the W-9 building. The hours of operation are 7 a.m. -10 p.m. Monday-Friday, and 9 a.m. - 6 p.m. on Saturday. A North Miami Campus Fitness Center is located in SC 140. The Centers are available at no cost to enrolled students. However, there is a $25 semester fee for faculty, staff, and alumni. Locker rooms are also available.

The Aquatic Center on the North Miami Campus is the newest addition to the growing list of recreational facilities at the University. The multipurpose design of the 50 meter x 25 yard pool and diving well allow for recreational and instructional uses. Open swimming hours are scheduled from Noon-6 p.m. daily during the academic year, and from Noon-8 p.m. during the summer term.

Another popular recreational component is the Racquet Sports Center at University Park. There are 12 lighted tennis courts and eight lighted racquetball courts. Operating hours are 4 p.m. - 10 p.m. Monday - Friday, and 8 a.m. - 6 p.m. Saturday and Sunday.

Events such as powerlifting competitions, golf, soccer, racquetball and tennis tournaments, deep sea fishing trips, and other recreation interests are featured each semester as one-time activities. The cost, if any, for these events is minimal. Some of these events are co-sponsored with Student Activities as part of the University "Theme Weeks". Students interested in forming sport clubs can contact the Recreational Sports office for information. Presently, the list of active sports include Bowling, Cheerleading, Cycling, Fitness, Lacrosse, Rowing, Scuba, Shotokan Karate, Tae Kwon Do. For educational and leisure enhancement, the recreation program presents a variety of topics in a series known as "Working at Wellness". These programs are offered with collaboration of the Wellness Center. There are also non-credit classes in aerobics and tennis for the casual recreation enthusiast.

For more information on Recreational Sports, call 554-2575.

Offices of Admissions, Financial Aid, Registration and Records, Registrar Support Services

The Offices of Admissions, Financial Aid, Registration and Records, and Registrar Support Services function as interrelated units responsible for the orderly and timely admission of students, evaluation of transfer credits, the provision of financial aid to students who can benefit from higher education but cannot do so without some assistance, and the dissemination of information about the academic programs of the University. The student academic record is created, maintained, and preserved in these offices. Transcripts of the academic record are also sent from here. Registration for classes, including the dropping or adding of courses, is a function of Registration and Records, and final grades are distributed by this office. The offices' staff has the responsibility to serve the student, faculty, other administrative offices, and the general public; to hold safe and preserve the confidentiality of the student's records; and to ensure the integrity of the University's policies and regulations.

Student Development Services

The Department of Student Development Services provides academic assistance for all students. Programs and activities offered include academic alert counseling, community service, reference library, and readiness testing. This office provides also workshops, one-on-one sessions in study skills, organization and time management, and personal growth.

Academic Alert

The following procedures should be adhered to once a student is on academic alert (Warning, Probation, or Dismissal):

1. The student should come in for retention counseling;
2. The student should take an assessment test to determine a student's college level reading, writing, mathematical, and study skills;
3. If the test shows a weakness in any of these areas, the student must attend and complete labs in the areas of deficiency;
4. The student should see a retention counselor for each semester on academic alert.

Students on academic alert should comply with this procedure prior to registration for classes.

The department's services are provided to all students whose GPA falls below 2.0 undergraduate or 3.0 graduate. Students are encouraged to stop by the office for assistance. The department is located in UH 331, University Park, 554-2436, and SC 265, North Miami Campus, 940-5817.

Student Government Association

The Student Government Association encompasses at the university level what our nation fosters at large: a spirit of democracy based on equal representation for all. Twice a year, students elect senators from their school/college to represent their interests. Bills, appropriations and resolutions are passed to provide support for, give monies to, or take action on certain issues. SGA members also serve on various university-wide committees and task forces to ensure student representation at the administrative level. SGA appropriates $l.5 million yearly in the form of a budget which itemizes the most productive way to spend student dollars. Four of the most important SGA committees are: Social and cultural, which coordinates all concerts, lectures, films and other cultural and social activities; the Academic Committee which recognizes excellence through awards and scholarships; the Inter-Organizational Committee which reviews applications from student organizations and recommends their approval and funding to the senate; the Media and Services committee which oversees the operation of the yearbook, literary magazine, and radio station. All of the committees are 100% student-run and depend on the input and support of all students. Students who wish to express their concerns, to participate in any of the events or join any committee should go the SGA office. The offices are located in UH 3ll at University Park, SC 259 on the North Miami Campus and WH 224 at the Broward Center.

Student Health Services

The Student Health Services provides resources to assist students achieve and maintain a positive state of health. Physicians, nurse practitioners and registered nurses are available to provide health education and preventive medicine, as well as diagnosis and treatment of illnesses. Services include medical and nursing care, physical examinations, pap smears, family planning, first aid, medication and laboratory services. There is no charge to the student for any service provided at the clinic. Students must present a valid University ID card for an appointment or drop-in visit. The Health Service also offers optional hospitalization coverage at a low group rate. For further information, contact the Health Clinic at 554-2401, OE 115, University Park, or 940-5620, Trade Center 110, North Miami Campus.

Student Union/Activities

The student centers at the University provide direct services outside the classroom to students and to the University community. The University House (UH) at University Park and the Student Center (SC) on the North Miami Campus are the focal points to meet and interact in a non-classroom yet educational environment. As the "hub' of student life, each building houses the bookstore, cafeteria, lost and found, rathskeller (pub), TV lounge, ballrooms, Student Activities offices, Student Government offices, counseling offices, International Student Services, Minority Student Services, and two 24-Hour bank tellers. In addition, the Student Center at North Miami houses the post office and the Ruth Foreman Theatre; and at University House provides a BASS ticket outlet.

Programs administered through the Student Union/Activities and the Student Government offices are designed to meet the varied needs and interests of students. Student programs are co-curricular and extend the educational spectrum from the classroom into the work of student organizations, Student Government, student program boards, events, and activities throughout the year. Participation in student activities allows students the broadest possible scope of education and on-the-job training during their time at the University. Some of the program committees are: Hispanic Heritage Celebration, Homecoming, American Heritage Celebration, Black History Month, International Festival, Jewish Awareness Celebration, concerts, lectures, movies, dances, SeaEscape, special events, elections, and orientation.

The University currently has over 85 registered student organizations established to enrich campus life and to contribute to the social, cultural, and academic growth of students. Students have the opportunities to organize groups that further social and service programs to promote the University's educational mission. Students interested in organizing a group or in joining one already formed should visit the Student Union office in UH 212D at University Park, or in SC 125 on the North Miami Campus.

Meetings for all student groups are posted on bulletin boards throughout the University and are announced daily on the University Park Eventline, 554-2177 or on North Miami's KNET 940-5807.

The Student Union Office is located in UH 212D, University Park, 554-2297; and SC 125, North Miami Campus, 940-5800. For information on student activities, contact UH 211, University Park, 554-2137, or SC 259, North Miami Campus, 940-5804.

Student Judicial Affairs

The University exists as a free marketplace of ideas, fostering the intellectual interchange of knowledge, ideas, and philosophies. Freedom of expression, including the freedom to teach and learn within an academically stimulating environment, is a right preserved for all members of the University community. In view of this, the University has developed policies and procedures regarding the rights and responsibilities of students, and a code of conduct assuring that these rights can be freely exercised without interference or infringement by others. A "Rights and Responsibilities of Students' booklet is available for the University community and may be obtained from the Office of Student Judicial Affairs in UH 331, University Park, 554-2436; and in SC 265, North Miami Campus, 940-5817.

Students are subject to Federal and State laws, local ordinances, and regulations of the University and the Florida Board of Regents. A breach or violation of any of these laws or regulations may result in judicial or disciplinary action.

When a student is involved in an offense resulting in criminal charges prior to admission to the University, the circumstances of the case may be reviewed by the appropriate Student Affairs Committee to consider the student eligibility for admission as well as participation in extracurricular activities.

On academic matters, students should first discuss their complaints with the departmental chairperson. Problems regarding general University (non-academic) matters should be directed to the Student Judicial Affairs Office. Students should consult with this office for all disciplinary clearances and details on University grievance procedures.

University Housing

On-campus apartment style housing is available for single and married undergraduate and graduate students at both the North Miami Campus and the University Park. Services and programs offered in the housing complexes are designed to be responsive to student needs and to support the educational goals of the University.

The residential environment provides an opportunity to meet and to interact with others in ways that encourage intellectual, social, and personal growth, as well as an awareness of the rich cultural diversity within the University. Students residing on campus have ready access to academic and recreational facilities, including libraries, the student centers, the Sunblazer Arena at University Park, and the Aquatic Center at North Miami Campus.

Regularly scheduled bus service between campuses enables students to attend classes and reside on either campus.

For those who prefer not to cook, a meal plan may be purchased through the Student Center cafeteria at North Miami Campus or the University House cafeteria at University Park.

All housing is assigned on the basis of space available and without regard to race, ethnic origin, or religious preference. Modified space is available for students with physical disabilities. Contracts are issued for the traditional academic year with summer housing available on request.

For further information and rates, write the University Housing Office, J-116, University Park, 10750 S.W. 12th Street, Miami, Florida 33199, or telephone (305) 554-0071.

Wellness Programs

Wellness programs and services are provided through the coordinated efforts of several areas including Counseling Services, Disabled Student Services, Student Health Services, Interfaith Campus Ministry, and Recreational Sports. The fundamental concept of the Wellness Programs is to assist students in the development of healthy lifestyles. This is achieved through an integrated offering of programs and services that attempt to enhance the psychological, physical and spiritual well-being of students. For example, a series of wellness related seminars is presented each semester by the above departments.

For additional information, contact department staff in UH 340, University Park, 554-2434; or in SC 260, North Miami Campus, 940-5813.

Business and Finance

The Division of Business and Finance comprises the offices of Administrative affairs, Human Resources, Budget and Planning, SERDAC, Academic Computer Services, Computer Systems and Services, University Legal Office, University Legislative Liaison, Institutional Research, and University Public Safety.

Academic Computer Services

Academic Computer Services (ACS) provides instruction and research computing support to the faculty and students of all academic departments on the North Miami Campus and University Park, and the Broward sites. Services include management of computer lab facilities, introductory seminars and workshops on the most widely used equipment and software, assistance with micro-mainframe communications, and limited peer and professional consultation on other computer-related problems. For a recording of University Park student lab hours call 554-2174. Direct other inquiries to the staff offices in PC 417, University Park, 554-2568, or in ACI 295, North Miami Campus, 940-5589.

Microcomputers

Although a few academic departments operate microcomputer labs for their own students, many arrange for their classes to use ACS micro labs. Instructors issue each student a small ACS sticker, which must be applied to the picture ID card. Open lab hours are adjusted each semester according to class offerings, overall load, and staffing resources. Occasionally during the peak periods before midterm and final exams, lab hours are extended to meet increased demand. Users are nevertheless advised to complete assignments early. Ethical computing practices are stressed.

On University Park, there are two instructional micro labs, an Apple-compatible lab in PC 416, and an IBM-compatible lab in PC 419. The 'open" lab in PC 411 provides additional access to micros and the option of up-and downloading to the VAX 8800. North Miami Campus provides Apple-compatible instructional support in ACI 393, and an IBM-compatible 'open" lab in ACI 293.

VAX 8800 Supermini the Southeast Regional Data Center (SERDAC), of the State University System, provides timeshare access to these powerful computers via a communications network which links the two campuses to each other, and provides gateways to several other state, national and international networks. The instructor of a course requiring supermini or network access issues each student a username on the class account and a file storage quota. Since processor usage and file storage needs vary by individual and course, empirical data from past semesters is used to estimate an average individual allocation which is generous for most, and which should suffice for all the students in the class. Efficient, ethical timeshare computer use by students is strongly encouraged and can directly increase the funding available for general improvement of computing facilities and other support services. The video and printing terminals in the ACS labs, as well as many of the micros, are directly linked to the SERDAC Ethernet. At the lab, the student picture ID is exchanged for a temporary terminal assignment card. Time limits may be imposed during periods of high demand. Check-in for the several rooms of the University Park lab area is outside PC 411. The North Miami Campus combined micro and terminal lab is in ACI 293. Remote dialup access is convenient for any student with her/his own terminal or microcomputer with modem. The telephone number of the SERDAC rotary in Dade is 553-0802. In most other Florida counties, local dialup access is available by first using the Florida Information Resource Network (FIRN) as a gateway to SERDAC, e.g. 764-5540 in Broward.

Part-time Student Employment

Academic Computer Services currently employs over 35 part-time lab assistants each semester. Although primarily responsible for maintaining a good working environment and flow of users through the facility, lab staff also diagnosis and resolve system and equipment malfunctions, and train other students to use the tools and resources of the lab. Due to the many different disciplines of the lab users, the variety of hardware and software, and direct training by the professional staff, working as a lab assistant for several semesters provides an excellent career experience and reference. Students with better than average interpersonal and computer skills are invited to apply.

Human Resources

Policy to Prohibit Sexual Harassment

Sexual harassment is a form of misconduct which undermines the integrity of the academic environment, which debilitates morale, and, therefore,interferes with the effectiveness of its victims and their peers. All members of the University must be allowed to work in an environment free from unsolicited and unwelcome sexual overtures. Since some members of the University hold positions of authority that may involve the legitimate exercise of power over others,it is their responsibility to be sensitive to that power, in order to avoid actions that are abusive or unprofessional. It shall be a violation of the University's rule on sexual harassment for any employee, agent or consultant to sexually harass, as harassment is defined in this rule, any other employee, student, agent or consultant. The policy is administered by the Office of Equal Opportunity Programs

Office Equal of Opportunity Programs

The office provides leadership and direction in the administration of the University equalization programs for women and minorities in several ways. It assists University units in implementing and monitoring affirmative action procedures; provides a channel for employee and student grievances regarding discrimination, or issues indicating a need for additional affirmative action; administers implementation of the Policy to Prohibit Sexual Harassment; and promotes effective relationships between the University and community organizations. The Office also administers the State University System Scholarship Program. In addition, the Office maintains a liaison relationship with State and Federal agencies dealing with EEO and Affirmative Action. The Office is located on the University Park in PC 215.

Florida Educational Equity Act

The Florida Educational Equity Act was passed by the State Legislature in 1984, and prohibits discrimination on the basis of race, sex, national origin, marital status, or handicap against a student or employee in the State System of Public Education. Procedures for implementing the Act have been developed, and the University prepares an annual report to ensure compliance with the Act. The Director of the Office of Equal Opportunity Programs is the University's coordinator of institutional compliance with the Educational Equity Act. A copy of the Education Equity Act Plan is available for review in the Office of Equal Opportunity Programs. This Office has the responsibility for implementing a comprehensive grievance/complaint procedure for students, applicants, and staff who believe they have been treated inequitably based on race, sex, national origin, marital status, or handicap. Such grievances/complaints should be lodged with this Office in PC 215, University Park.

University Statement Concerning AIDS

Medical research and experience have established that the virus responsible for AIDS is not easily transmitted or contracted. Students and employees of the University who become infected with the AIDS virus will not be excluded from enrollment, employment, or restricted in their access to University services or facilities, unless medically-based judgements in individual cases establish that exclusion or restriction is necessary to the welfare of the individual or other members of the University community.

Persons who know or suspect they have been exposed to the virus should seek expert medical advice and are obligated, ethically and legally, to conduct themselves responsibly in accordance with such knowledge for the protection of themselves and others.

If you want more information on this subject, contact one of the following offices at University Park: Director, Office of Equal Opportunity Programs, PC 215; Counseling Services, UH 340; and Student Health Services, OE 115; and on North Miami Campus, Counseling Services, SC 261, or Student Health Clinic, TC 110.

University Public Safety Department

The University Department of Public Safety is a full service Public Safety organization working to maintain a peaceful and safe academic environment throughout the entire University community. The protection of persons and property is the specific responsibility of the Department of Public Safety's police division. As State of Florida law enforcement, members of this unit have full police authority. This unit enforces state and local laws and University regulations. University police address the needs of the educational community through objective enforcement and quality Public Safety service provided around the clock.

Parking and Vehicle Registration: Vehicle registration is the process of obtaining authorization for parking a specific vehicle on the campuses and affixing the appropriate parking decal or temporary permit to the vehicle as prescribed. All registration fees for motor vehicles, including motorcycles, motorbikes, and mopeds, regularly operated and parked on University property must be paid for at the University Cashier's Office and the vehicle must be registered at the University Public Safety Department. Upon registration, the owner of each vehicle will be issued the appropriate decal or permit. A parking decal or permit is required for all vehicles parking on campus. A booklet on traffic and parking regulations is available at the University Public Safety Department. Parking and traffic regulations are strictly enforced.

Auxiliary Services

The Auxiliary Services at the University are self-supporting entities that sell goods and services at a price that approximates the cost. Auxiliary Services operates and coordinates food service, bookstore, duplicating, central stores, and vending.

Food Service

Food and beverage service on the University Park is available on the first floor of University House. Snacks and complete meals are served cafeteria-style. The cafeteria includes tables in the main area surrounded by small dining rooms and patio dining areas. The North Miami Campus is served by a full-service cafeteria located on the second floor of the Student Center.

Bookstore

The University bookstores are located in University House on the University Park, and in the Student Center on the North Miami Campus.

University Relations & Development

The division is responsible for planning and managing all university programs relating to external relations, including public and community relations, publications, alumni affairs, and fund raising.

Division activities are centered in four departments:

Development

This department provides resources and staffing to identify, evaluate, cultivate and implement strategic plans and programs to advance the university's development goals through contributions from private sector sources. Programs currently in operation include: The Cornerstone Campaign, Annual Fund, endowment and specialized fund raising projects. The Vice President for University Relations & Development is also the Secretary for the FIU Foundation, and the Development staff provides operational assistance to the members of the Board of Trustees of the Foundation.

Alumni Affairs

The University currently has more than 38,000 alumni of record, many of whom reside in the local area and have achieved substantial professional or civic success after graduating from FIU. The Alumni Affairs staff seeks to maintain contact with all FIU alumni through newsletters and other publications, to support a regular program of alumni activities on and off campus, to involve alumni in recruiting and promotional programs for the University, and to promote the goals and programs of the FIU Alumni Association.

Community Relations

The staff of the Community Relations department seeks to strengthen university and community ties, to encourage the creation of new partnerships between the local business, educational and civic community and the University, and to promote special events and programs offered by the university that may be of interest or benefit to the community. This department also manages university events such as commencement, convocation, and hosts special campus visitors.

University Relations

University Relations staff provide resources to advance the university's public image and provide accurate and timely public information through the Office of University Communications, the Office of Advancement Services, and the Office of Media Relations. The Office of University Communications is charged with responsibility for producing informative, accurate, cost effective and attractive publications which are consistent with the university's mission and goals and the requirements of the state university system. The staff provides editorial, design, and technical assistance on all university publications. Regular university publications include: INSIDE, Inside EXTRA, Calendar, The University Catalog, and student recruiting materials. Advancement Services staff provide professional direction and consultation on external advertising, marketing services, and publications design. Media relations staff are the university's primary linkage with representatives of the print and broadcast media, and issue press releases and other information regarding university personnel, programs, and activities.

Centers and Institutes

Center for Accounting, Auditing, and Tax Studies

The Center for Accounting, Auditing, and Tax Studies (CAATS) sponsors innovative research. It builds bridges to professionals in practice by turning ideas into reality; it seeks to enhance the value of accountants' services to clients and to the public, to contribute to audit efficiency and effectiveness, and to maintain a north-south accounting dialogue.

The Center conducts also seminars and short courses designed to provide non-credit educational opportunities to South Florida public accountants, internal auditors, and management accountants.

CAATS strives to be self-supporting. Net fees earned by providing educational opportunities to accountants, and contributions received from the public, are applied to research, and to the enrichment of graduate instruction. In this way, CAATS provides the margin of excellence which enhances the entire educational experience.

All CAATS activity is dedicated to advancing accounting, auditing, and tax knowledge. The center is located in DM 397, University Park, 554-2581.

Center for Banking and Finance

The Center for Banking Research, originally established as the International Banking Center in July 1978, became a center for research focus and excellence within the Department of Finance, College of Business Administration, in January 1987. The Center's faculty and staff work closely with members of the financial community representing all facets of banking and related areas. The primary emphasis of the Center is on research related activities. This emphasis includes publication of The Review of Research in Banking and Finance, sponsorship of topical research workshops for the banking community, and support of faculty research projects identified by a committee of bank executives as being of major interest to the financial community of Southeast Florida.

The Center's activities include conferences, training programs, and a Distinguished Lecture Series on Banking. The Center cosponsors with the Department of Finance and a Certificate in International Bank Management Program. Each certificate program consist of four undergraduate or graduate finance courses representing approximately 150 contact hours between instructors and participants. Upon successful completion of the program, a certificate signed by the Dean of the College of Business Administration is awarded.

The Center is located in W4-202, University Park, 554-2771.

Center for Economic Education

The Center for Economic Education's purpose is to foster a greater understanding of economics. The Center represents an important link between the University, business, and education communities. As a part of its activities, the Center sponsors conferences and seminars, provides courses in economic education for teachers, and disseminates economic data and information. The Center also provides community education in the areas of international trade and commerce, and the South Florida economy. Established in 1982 as one of eight centers located throughout the State University System, the Center is located in DM 342A, University Park, 554-2316.

Center for Educational Development

The Center for Educational Development (CED) is a multidisciplinary unit based in the College of Education whose mission includes: (1) planning, technical assistance, training and research in support of educational systems development internationally and domestically; (2) increased minority group access to and achievement in educational systems; (3) acquisition of state and external resources for development of educational systems; and (4) multi-institutional collaboration in educational development projects and research. The Center is governed and supported jointly by Florida International University, Miami Dade Community College, and the University of Miami. It is comprised of two specialized institutes: the International Institute of Educational Development and the Urban Educational Development Institute. For more information call 940-5820, or write to the Executive Director, Center for Educational Development, College of Education, North Miami Campus, Miami, Florida 33181.

Center for Labor Research and Studies

The Center for Labor Research and Studies (CLR&S) was established in 1971 to promote research, curriculum development and community service in labor relations at the University. Accredited through the University and College Labor Education Association (UCLEA), the Center is one of forty-four accredited labor centers in the United States. Its broad mission is to provide 'services to workers and their organizations'. This broad mission translates into three specific objectives: 1) to provide comprehensive, statewide labor education service; 2) provide internal and applied research programs designed to support faculty research in labor relations, the changing nature of work, and labor education issues; and 3) develop a multidisciplinary credit and non-credit curriculum in labor studies at the University.

As a Type I Center of the Florida State University System, the CLR&S has major responsibility at the University for research on labor relations and the changing nature of work in Florida as well as curriculum development and community service. This responsibility can be met, in part, by following the University's mandate as described in its mission statement: '(to) serve the broad community with special concern for greater Miami and South Florida, enhancing the metropolitan area's capacity to meet its cultural, economic, social and urban challenges.'

Since it was founded, the CLR&S has become known nationally for its innovative statewide non-credit training programs. These educational activities, which serve over 2,000 students a year, have helped to educate labor and management participants not only in labor relations but have introduced innovations in pension fund administration, dynamics of privatization, and international labor perspectives to local and national audiences.

The Center houses several projects which serve to carry out its research and training functions. Among them are the Hispanic Workers Project, the Contemporary Labor Issues Conference Series, the Labor and Community Program, and the Applied Research Program. Faculty research is distributed through its various publication series.

A credit certificate in Labor Studies is offered as well as conferences, workshops, and consultation and research services. The Center is located in TR-2, University Park, 554-2371.

Center for Management Development

The Center for Management Development, located in the office of the Dean, College of Business Administration, was created by the Board of Regents in 1980.

Contract Training

Management training and executive development programs are provided in the community and at the North Miami Campus. Programs are created to meet the unique training needs of each client. Faculty/trainers use highly interactive, practical, and industry-specific activities aimed toward developing job-related competencies. Certificates, Continuing Education Units (C.E.U.'s), and Nurses Contact Hours may be earned.

Non-Credit Certificate Programs

Public programs are offered in Personnel Administration, Training and Human Resource Development, and Supervisory Skills. These programs are co-designed by College of Business Administration faculty and community executives serving on Advisory Councils. While based in academic theory and models, these programs use hands-on techniques and applications participants find useful. Certificate and C.E.U.'s may be earned.

Microcomputer Workshops

Located in North Miami Campus, this lab is equipped with IBM personal computers. The programs offered include:

Introduction to Microcomputers
Spreadsheets
Word Processing
Business and Accounting Applications
Data Base Management
Technical Assistance and Consultation

The Center is a clearing house for matching a variety of faculty resources to complex and specialized needs of the community. It draws on a variety of disciplines in the College of Business Administration to serve the private and public sectors.

The Center is located in ACII-310, North Miami Campus, 940-5825.

Consumer Affairs Institute

The Institute functions in a research, teaching, and service capacity. Its primary goal is to develop alternatives to the adversary/advocate system in an equitable solution of consumer affairs problems. Working on the peer level, it attempts to bring together representatives of consumers, business, government, labor, and academia. The Institute is located in DM 339B, University Park, 544-3277.

Drinking Water Research Center

The only facility of its kind in the State of Florida, the Drinking Water Research Center (DWRC) was created by the Florida State Legislature in 1977. The Center is primarily devoted to conducting scientific research and developing essential technologies that can be used to provide quality drinking water for Florida, the U.S. and our global neighbors. The Center receives financial support from the State of Florida and from research grants. The Center does not perform routine tests of water for individuals. Administratively the Center is a part of the College of Engineering and Applied Sciences.

Through programs of research, education, community service, and public information, the Center provides a comprehensive approach toward solving the dilemmas involving the world's largest and most essential natural resource: water. Although enormous quantities of water exist, the proper amount of good quality water is not to be found in the right places at all times. Without an adequate supply and quality of water, a society's physical and economic health will surely suffer.

The Center staff does not conduct academic classes. However, qualified students often have an opportunity to work as research assistants in the Center's laboratories or carry out independent research projects. Cooperation and interchange with other departments in the University are maintained. The Center is located in VH 326, University Park, 554-2826.

Elder's Institute

The Elder's Institute, a continuing education unit within the Southeast Florida Center on Aging, serves the educational needs of the senior adults on the University's North Miami Campus. The Institute's mission and scope is to initiate, plan, design, and manage non-credit short courses, lectures, seminars, and workshops for the retired older learner. Programs are offered during daytime hours, on campus, where participants may use the full range of University facilities. The courses offered are primarily in the humanities, the behavioral sciences and the social sciences. Workshops and seminars provide opportunities to develop new skills and to explore methods and means for personal growth and self-improvement. The Institute's instructional staff are community experts, University faculty and retired seniors. The participants are motivated learners who seek knowledge, new information and skills for intellectual stimulation and personal growth. Additional benefits are increased social opportunities which can lead to new friendships and meaningful relationships. The Institute also serves as a resource for community agencies and professionals in the field of gerontology. The Institute is located in TC 320, North Miami Campus, 940-5910.

FAU-FIU Joint Center for Environmental and Urban Problems

The establishment in July 1972 of the Joint Center for Environmental and Urban Problems by Florida International University and Florida Atlantic University was based on the premise that many of Florida's environmental and urban problems are interrelated growth management problems. The headquarters of the Joint Center are located on the Broward campus of FAU at the University Tower in Fort Lauderdale with branch offices on FIU's North Miami Campus and FAU's Boca Raton campus.

An associate director, research associate, and secretary staff the FIU office. Part-time research associates and assistants supplement the full-time staff, as do University faculty members on individual research projects.

The Joint Center functions as an applied research and public service facility that carries out programs supportive of local, regional and state agencies, private institutions, and individuals. The Center achieves its purposes through activities in the following program areas: (1) in-house research with application to state, regional, and local governments; (2) research projects, supported by grants and contracts with public and private agencies, that address environmental and urban problems; (3) applied research grants awarded to faculty at the two universities; (4) publication of the Joint Center's quarterly journal, Environmental and Urban Issues, and other publications; (5) production, in conjunction with FIU's Media Services, of television documentaries and public service messages concerning selected urban and environmental topics; and (6) workshops, assemblies, conferences and lectures.

Research

Recent in-house research projects have included: an evaluation of an alternative conflict management methods for complex environmental and development disputes in Florida, and an assessment of how three of Florida's Resource Planning and Management Committees managed conflicts. Joint Center research supported largely by grants and contracts has dealt with topics such as the socio-economic impacts of federal, state, and local correctional facilities on local communities, and the effectiveness of government incentives for low and moderate income housing.

Applied research grants recently awarded to faculty members at the two universities have supported an assessment of an alternative sample survey technique for use in public opinion polling about local issues, an analysis of the special needs of South Florida's elderly population during hurricane evacuation, and a study of air quality protection.

Service

In cooperation with local, regional and state agencies, and with private organizations, the Joint Center has organized, directed, and staffed conferences for public officials and community leaders on issues of agricultural land retention, protection of drinking water supplies, and growth management. In conjunction with FIU's Media Services, television documentaries concerning coastal management issues, agricultural land retention and the lives of two nationally prominent environmental leaders in Florida have been produced and distributed for public education purposes. The FIU office is located in AC-II 135, North Miami Campus, 940-5844.

English Language Institute

Since 1978, the English Language Institute (ELI) has offered non-credit English language instruction to non-native speakers of English in the community and from abroad.

Classes in reading, grammar, writing, and conversation are taught at five levels of proficiency. Language laboratory facilities are available in which students can increase their listening comprehension and speaking skills under the guidance of an instructor. Students normally take a full, four-course load, but it is also possible for fully admitted University students to take a course in a single skill.

Testing and Placement

The English Language Institute offers proficiency testing of both written and oral proficiency in English as a support service for academic units throughout the University. Evaluative procedures are designed to fit the needs of individual programs or schools, to assist them in the identification of individual students' level of proficiency in English, and to place students in appropriate programs of study when needed. In addition, the Testing and Placement Center regularly administers the Test of English as a Foreign Language (TOEFL) and the Test of Spoken English (TSE) for members of the University and Dade County school communities. Finally, the Center provides certification in oral English proficiency through the FIU Oral English Proficiency Exams in cooperation with English language agencies abroad.

ESL Evening and Saturday Program

The English Language Institute offers non-credit courses in the evening and on Saturday for non-native speakers of English.

Accent Reduction

Accent reduction classes are available for non-native speakers of English who a have a good command of the language but who wish to improve their pronunciation.

The English Language Institute is located in PC 245C, University Park, 554-2222.

International Institute for Creative Communication

The International Institute for Creative Communication is a State University System consortive fellowship which initiates and administers grants, programs, and projects in the arts, humanities, and information technology. Hosted by Florida International University, the Institute also works cooperatively with the Bureau of Cultural Affairs and the State Arts Council. Currently the Institute operates a microcomputer network linking professors in the arts and humanities at each of the nine state university campuses. The ultimate goal of the Institute is to establish an expanded interactive communication network devoted to teaching, training, and nurturing creative activities in the arts and humanities. For more information, call 940-5920.

International Institute for Housing and Building

The International Institute for Housing and Building is established by the College of Engineering and Applied Sciences, to provide expertise in the design, engineering, architectural, and management aspects of construction. The Institute provides academic research, and service programs to Southeast Florida, Latin America, the Caribbean, and developing nations throughout the world.

The Institute emphasizes the following activities related to housing environment.

1. To initiate and carry out research on problems related to building planning and construction, considering especially the technology, economic, financial, and managerial aspects of the topic
2. To generate funds from outside sources to finance theoretical and applied research activities

3. To disseminate the results of research projects and encourage their implementation

4. To provide technical services to private and official organizations with a special emphasis on service to the housing production industries of South Florida and in international context

5. To act as an interface between new developments in Housing Science and their application in the field of housing and planning in South Florida and to assess their relevance to the housing industry

6. To collect documents and disseminate information on the latest advances in building science and housing

7. To attract researchers of the international stature and reputation to the University and South Florida

8. To develop a learning environment in the area of building sciences relevant to the needs of low- and medium-income people of the world

9. To collaborate with other research institutes, government agencies, and universities to increase the effect of its research program

10. To organize scientific meetings, symposia conferences, seminars, and workshops at the University and elsewhere

11. To incorporate the use of alternative energy, energy conservation, and efficient use of natural resources in the planning of large projects, and to encourage the utilization of indigenous materials and labor sources

12. To help implement programs to alleviate the impact of various disasters on housing including the coordination of disaster preparedness activities related to housing.

An underlying concern of the Institute is to establish an interdisciplinary environment in which many disciplines within the University and the community can arrive at feasible solutions to housing and building problems. It is located in VH 238, University Park, 554-3171.

Institute in the Creative and Performing Art for the Exceptional

The Institute in the Creative and Performing Arts for the Exceptional provides significant arts experiences for exceptional children and adults working with community arts organizations. Research in the arts are an integral part of the institute's activities. For more information, contact 554-2095.

Institute of Judaic Studies

The Institute of Judaic Studies (IJS) brings the University and the community together in a mutual effort to nurture teaching and research in academic areas which stand as the cornerstones of Western Civilization. The objective of the Institute is to infuse Jewish content into the curriculum of the University at all appropriate levels. Contemporary issues and problems provide focal points for study, dialogue, exchange and travel. The Institute fosters scholarship and inquiry into Jewish themes leading to the development of course offerings within existing academic departments. For more information, call 554-3206.

Institute for Public Management and Community Services

The Institute for Public Management and Community Services (IPMCS) is the research, training, and technical assistance arm of the School of Public Affairs and Services. Established in 1978 by the Board of Regents, the Institute provides an organizational link between FIU and state and local government agencies, as well as non-profit social service organizations. The major functions of the Institute are to assist these agencies and organizations in more effectively understanding and meeting the increasing demands being placed upon them, and to broaden community understanding of the major public policy issues confronting the State and region.

The Institute is located in ACI-200, North Miami Campus, 940-5888.

Institute for Public Policy and Citizenship Studies

The Institute for Public Policy and Citizenship Studies was founded in 1985 to offer students, faculty, and the community alternative learning opportunities in public policy and citizenship development. Four key objectives have guided the Institute's programs:

1. To provide non-traditional educational opportunities to the student body on the responsibilities and opportunities of citizenship.

2. To assist students and faculty in understanding the impact that public policy has on their daily lives and in their career pursuits.

3. To promote interdisciplinary research efforts among faculty on local and national policy matters.

4. To encourage joint university and community efforts on local policy issues.

The Institute sponsors the Student Honors Mentor Program, a semester long opportunity for students to meet and interact with peers and faculty members from other academic disciplines. The Mentor Program encourages participants to examine a public policy issue in a small group setting through discussions, research, or innovative projects. In providing an alternative mode of learning, the Institute hopes to give students practical experience in community decision-making and problem-solving.

In addition, the Institute sponsors conferences and events focusing on key policy issues that are salient within our local community. Nationally known speakers and University faculty are invited to present their research findings and perspectives on a variety of issues ranging from citizenship education in Dade County to the ethical implications of an aging society to the impact of government regulations on the fishing industry. The conferences are designed to offer the public and university community additional resources in understanding the policy problems that we, as a community, face on a daily basis.

The Institute is located in PC 242, University Park, 554-2977.

Latin American and Caribbean Center

The Latin American and Caribbean Center (LACC) promotes advanced education and research on Latin America and the Caribbean, a region of intense interest to the United States. LACC offers undergraduate and graduate certificate programs to both degree and non-degree seeking students, sponsors and promotes faculty research in the region, and offers public education program on Latin America and the Caribbean as a means by which to enhance inter-American understanding.

Since it was founded in 1979, LACC has become one of the country's leading programs in Latin American and Caribbean studies. Over sixty language and area studies faculty regularly offer nearly 100 courses on diverse topics. Special seminars on the Latin American debt and business environment as well as other socio-political and historical issues complement LACC's efforts. Externally funded research programs have supported a continual flow of visiting Latin American scholars to the University and gifts from the local community have helped the University to build a strong Latin American and Caribbean studies library collection.

LACC regularly places students in foreign study programs and local internships. More information is available in PC 237, University Park,
554-2894.

Center for Multilingual and Multicultural Studies

The Board of Regents established the Center for Multilingual and Multicultural Studies as a center of excellence in order to improve the quality of foreign languages, bilingual education, linguistics, and multicultural programs offered in the State.

The main purpose of the Center is to develop, plan and coordinate research and training programs in the areas of foreign languages and literature, linguistics, bilingual education, multicultural studies in international and domestic contexts, and international studies. Its primary research programs focus on language policy, immigration, and ethnicity.

The Center houses several projects which serve to carry out its research and training functions. Among them are the Southeast Multifunctional Resource Center, the Cuban Exile History and Archives Project, the Florida Consortium on Multilingual and Multicultural Education, the Negritude in the Americas Project, the Haitian Materials Project, Latino Studies, etc. It also coordinates all multilingual and multicultural activities on campus.

Cuban Exile History and Archives Project

The Cuban Exile Archives collects rare imprints, manuscripts, audiovisuals, ephemeral, artifacts, recorded oral testimonies and machine readable records illustrating and documenting the Cuban-American heritage. It seeks to disseminate them through historical research by members of the University, other area institutions, and the general public. The resulting research is published in Cuban Heritage: A Journal of History and the Humanities which appears quarterly. The preservation of the Cuban community's living testimony through the techniques of oral history is also one of the Project's main concerns. The Cuban Exile History and Archives Project offers a free consultation service to non-profit community organizations. The Project encourages the donation of historically significant materials to the Cuban Exile Archives or to other appropriate repositories.

Southeast Multifunctional Resource Center

The Southeast Multifunctional Resource Center is one of 16 Title VII Bilingual Education Multifunctional Resource Centers providing technical assistance to state educational agencies, local educational agencies, and institutions of higher education, community based organizations and other agencies which are involved in meeting the needs of limited English proficient persons. The Center serves seven southeastern states: Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee. Recipients of services include school administrators, teachers, paraprofessionals, counselors, psychologists, and special education and vocational education staffs. The Center is located in TR-MO3, University Park, 554-2962. Two toll-free telephone lines serve the region (1-800-325-6002) and the state (1-800-432-1406), respectively.

Small Business Development Center

The Small Business Development Center (SBDC) is a program designed to provide comprehensive small business management and technical assistance to the small business community. The Center serves as a focal point for linking resources of the federal, state, and local governments with those resources of the University and the private sector. These resources are utilized to counsel and train small businesses in resolving start-up, organizational, financial, marketing, technical, and other problems they might encounter.

The Small Business Development Center is a basic services center. It disseminates business management information, performs financial analyses and management audits, assists in market and feasibility studies, and provides business management counseling and training.

In June 1980, the SBDC started actively fulfilling its mission to the small business community of greater Miami area by providing counseling services and training programs to the public. In the past year, the SBDC staff provided 3,671 people from the community with small business management training. Also, the Center counseled 1,798 persons in starting and managing their small businesses during the same period.

In particular, the SBDC has developed a reputation for packaging Small Business Administration loan applications. Numerous referrals from the major banks and government agencies in the Miami area have resulted from this. The Center also attracts many clients through its special services such as INFO BID and the Florida Innovation Program. These services are designed to provide, respectively, leads for government and private contracts to Florida small businesses and assistance to the inventor/entrepreneur. Since its inception, the SBDC has expanded its outreach effort. Presently, the Center is subcontracting to Florida Keys Community College in Key West, which significantly increases the geographic coverage of the program.

The SBDC is actively involved in promoting community relations for the University through the activities of its staff with Chambers of Commerce, trade associations, and community-based organizations. These activities include serving on committees and numerous speaking engagements.

The Center is located in Trailer MO-1, University Park, 554-2272, ACI 350, North Miami Campus, 940-5790, and the World Trade Center, Port Everglades, 987-0100.

Southeast Florida Center of Aging

The Southeast Florida Center on Aging offers a *multi-disciplinary program in gerontology with a unique public sector focus. It is the mission of the Center to serve as a focal point for applied public policy research, a designer and implemented of comprehensive gerontological education and training program for students, professionals and older learners, and an innovator and demonstration site for new concepts to serve older persons. The Center seeks to achieve its goals through a wide variety of educational activities designed to further the pursuit of knowledge and understanding about aging in today's society, with particular emphasis upon the development and implementation of public policy.

Objectives

The Center will support, sponsor, conduct, and participate in a wide range of activities aimed at improving the quality of life for older people of South Florida. Pursuant to its mandate for education and training, research and community service, the Center is engaged in:

1. Development of gerontology education across disciplines throughout the University community
2. Expanded opportunities for training and professional development of persons working with or planning to work with older people.
3. Gerontological research, with special emphasis on applied public policy in the area of long term care.
4. A wide range of lifelong learning and educational opportunities for older people.
5. Technical assistance and support to public agencies and community organizations aimed at improving the effectiveness of programs for older people.

The center consists of three components:

Research: focus on applied public policy research as well as promotion of research involving faculty from a variety of disciplines within the University. There is an emphasis on potential applications of research findings by policy makers and health and social sciences practitioners.

Education and Training: Organization, in close collaboration with the academic departments, of credit and non-credit certificate programs for undergraduate and graduate students and for practitioners in the field of aging. Delivery of training seminars and workshops both at the University and at locations throughout Southeast Florida. These programs are offered with options for continuing education credit, a certificate in gerontology, or non-credit.

The Elders Institute, a continuing education program, offers a broad array of continuing education courses for the older learner and is exploring development of additional educational and cultural activities for older persons.

Program Development and Technical Assistance: Design of innovative concepts and programs that further public policy objectives to expand opportunities for older people or to improve the delivery of health and social services to them. The Center provides also assistance and support for agencies and organizations serving older people throughout Florida.

The Center is located in TC 320, North Miami Campus, 940-5550

Women's Studies Center

The Women's Studies Center serves as a University resource on the specialized concerns and academic interests of women. A major focus of the Center is the interdisciplinary Certificate Program in Women's Studies which provides support for the certificate faculty committee and the development of the program. The Certificate in Women's Studies was established to provide an opportunity for the interdisciplinary study of the historical, political, economic, literary, social, and cultural roles of women; and of the function of gender in various societies and cultures. The program is directed toward specialists and generalists alike: it offers a plan of study for students in the various departments who wish to earn a certificate in women's studies, and it welcomes students who wish to enroll in its courses without fulfilling the requirements for the certificate.

The Center provides a place and opportunity to foster women's progress through such activities as referrals, counseling, peer groups, access to studies and research on women's learning and culture, and assistance on issues of gender inequality. The Center offers seminars, conferences, lecture series, and related events on both academic and women's issues topics.

The Center is located in OET 5, University Park, 554-2408.

Florida's Statewide Course Numbering System

The course numbers appearing in the catalog are part of a statewide system of prefixes and numbers developed for use by all public post-secondary and participating private institutions in Florida. One of the major purposes of this system is to make transferring easier by identifying courses which are equivalent, no matter where they are taught in the state. All courses designated as equivalent will carry the same prefix and last three digits.

The classifying and numbering of courses is done by faculty in each academic discipline. Their work is reviewed by all of Florida's postsecondary institutions who make suggestions and criticisms to be incorporated into the system.

The course numbering system is, by law, descriptive and not prescriptive. It in no way limits or controls what courses may be offered or how they are taught. It does not affect course titles or descriptions at individual schools. It seeks only to describe what is being offered in post-secondary education in Florida in a manner that is intelligible and useful to students, faculty, and other interested users of the system.

The course numbering system was developed so that equivalent courses could be accepted for transfer without misunderstanding. Each public institution is to accept for transfer credit any course which carries the same prefix and last three digits as a course at the receiving institution. For example, if a student has taken SYG 000 at a community college, he cannot be required to repeat SYG 000 at the school to which he transfers. Further, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a native student to satisfy degree requirements at a state university can also be used for that purpose by a transfer student regardless of where the credit was earned.

It should be noted that a receiving institution is not precluded from using non-equivalent courses for satisfying certain requirements

General Rule for Course Equivalencies

All undergraduate courses bearing the same alpha prefix and last three numbers (and alpha suffix, if present) have been agreed upon to be equivalent. For example, an introductory course in sociology is offered in over 40 post-secondary institution in Florida. Since these courses are considered to be equivalent, each one will carry the designator SYG 000.

First Digit

The first digit of the course number is assigned by the institution, generally to indicate the year it is offered: 1 indicates freshman year, 2 indicates sophomore year, etc. In the sociology example mentioned above, one school which offers the course in the freshman year will number it SOC 1000; a school offering the same course in the sophomore year will number it SOC 2000. The variance in first numbers does not affect the equivalency. If the prefix and last three digits are the same, the courses are substantively equivalent.

Titles

Each institution will retain its own title for each of its courses. The sociology courses mentioned above are titled at different schools 'Introductory Sociology,' 'General Sociology,' and 'Principles of Sociology.' The title does not affect the equivalency. The courses all carry the same prefix and last three digits; that is what identifies them as equivalent.

Lab Indicators

Some courses will carry an alpha suffix indicating a lab. The alpha suffixes 'L' and 'C' are used as follows to indicate laboratories: 'L' means either (a) a course, the content of which is entirely laboratory or (b) the laboratory component of a lecture-lab sequence in which the lab is offered at a different time/place from the lecture.

'C' means a combined lecture-lab course in which the lab is offered in conjunction with the lecture at the same time/same place.

Examples

Marine Biology	OCB 013 (lecture only)
	OCB 013L (lab only)
Marine Biology	OCB 013C (lecture and lab with lab combined)

Therefore, OCB 013C is equivalent to OCB 013 plus OCB 013L.

Equivalency of Sequences

In certain cases, sequences of courses in a given discipline are equivalent rather than the individual courses which make up these sequences. (For example, CHM _045 plus CHM _046). In several institutions students have completed substantively equivalent content. These sequences are clearly identified in the Course Equivalency Profiles.

Explanation of Prefixes and Numbers

Prefixes and numbers in the course numbering system are not chosen at random; they are designed to describe course content in an organized fashion within a classification system developed for each subject matter area.

Generally, each of the major classifications in a discipline is represented by a three-alpha prefix. In some cases, one three-alpha prefix has been sufficient for the entire discipline. A discipline may use as many prefixes as necessary to accommodate its major classifications. The logic of the system allows it to be infinitely expandable with minimal disruption to existing numbers.

History, for example, has seven prefixes: AFH, African History; AMH, American History; ASH, Asian History; EUH, European History; HIS, History - General ; LAH, Latin American History; and WOH, World History. All history courses in the state will carry one of these prefixes.

A complete inventory of taxonomic listings, equivalent and unique courses has been made available to each academic department of every institution in the state. Students, through their local advisors, should use this information in designing programs which will transfer smoothly.

Exception to the Rule for Equivalencies

The following are exceptions to the general rule for course equivalencies:

1. All numbers which have second digit of 9 (Ex.: ART 2906) are 'place keeper' numbers for such courses as directed independent study, thesis hours, etc. Courses with 900 numbers

A more specific example is AMH 3421 (Early American History)

AMH	Broad Area of American History; part of discipline of History
3	Junior level offering (at this particular institution)
4	In Taxonomy for AMH 400 series indicates 'Areas in American History'
2	In Taxonomy for AMH this digit indicates courses in 'History of Florida'
1	Last digit in this case refers to group of equated courses dealing with 'Early History of Florida'

must be evaluated individually and are not automatically transferable.

2. All internships, practicum, clinical experiences and study abroad course, whatever numbers they carry, are not automatically transferable.

3. Performance or studio courses in Art, Dance, Theatre, and Music are not automatically transferable, but must be evaluated individually.

Authority For Acceptance of Equivalent Courses

Authority for acceptance of equivalent courses is State Board of Education Rule 6A-10.24(16) which states:

(16) When a student transfers among postsecondary area vocational-technical centers, community colleges, and universities, the receiving institution shall award credit for courses satisfactorily completed at the previous institutions when the courses are judged by the appropriate common course designation and numbering system faculty task force to be equivalent to courses offered at the receiving institution and are entered in the course numbering system. Credit so awarded can be used by transfer students to satisfy certificate and degree requirements in these institutions on the same basis as native students.

Administration and Staff

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Director, Internal Auditing	**Alfredo Acin**
Executive Director Office of the President	**TBA**
Administrative Assistant to the President	**Sandra Howard**

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Vice Provost	**Thomas A. Breslin**
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Dean (Acting), Graduate Studies	**Richard L. Campbell**
Dean, Undergraduate Studies	**Clair T. McElfresh**
Associate Dean, Undergraduate Studies	**Joseph C. Wisdom**
Associate Dean, Undergraduate Studies, North Miami Campus	**Norma M. Goonen**
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Legislative Liaison	**Henry Solares**
University Attorney	**Leslie Langbein**

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Director, University Personnel Relations	**Gloria B. Carter**
Director, University Public Safety	**Harvey Gunson**

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Assistant Vice President (Acting), Developmental Services	**Glenda A. Belote**
Assistant Vice President, Admissions and Financial Aid	**Thomas A. Syracuse**
Assistant to the Vice President	**John Bonanno**
Assistant to the Vice President and Director, Minority Student Services	**Ozzie Ritchey**
Director, Admissions,	**William L. Brinkley**
Director (Acting), Career Resources Center	**Olga Magnusen**
Director (Acting), Counseling Services	**Deborah K. Tyson**
Director, Financial Aid	**Ana R. Sarasti**
Director (Acting), Housing	**Ana Sanchez Sippin**
Director, Intercollegiate Athletics	**Richard Young**
Director (Acting), International Student Services	**Melissa H. Wolfe**
Director, Registrar Support Services	**Gabriel E. Yanni**
Director, Registration and Records	**Lourdes A. Meneses**
Director, Student Center, North Miami Campus	**George E. Wilson**
Director, Student Union and Activities, University Park	**Ruth A. Hamilton**

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Assistant Vice President, Community Affairs	**Maria A. 'Toni' Bilbao**
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Centers and Institutes

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Director, Drinking Water Research Center	**William Cooper**
Director, Elders Institute	**Doris Bass**
Director, English Language Institute	**Charlotte K. Al-Jamal**
Associate Director, FAU-FIU Joint Center for Environmental and Urban Problems	**Kathleen Shea Abrams**
Director, Institute for Judaic Studies	**Stephen Fain**
Director (Acting), Institute for Public Management and Community Services	**Carmen Mendez**
Director, Institute for Public Policy and Citizenship Studies	**Jack D. Gordon**
Associate Director, Institute for Public Policy and Citizenship Studies	**Rebecca M. Salokar**

Director, Institute in the Creative and Performing Arts for the Exceptional	**TBA**
Director, International Institute for Creative Communication	**Edmund Skellings**
Director, International Institute for Housing and Building	**Oktay Ural**
Director, International Institute for the Study of Sports	**TBA**
Director, Latin American and Caribbean Center	**Mark B. Rosenberg**
Associate Director, Latin American and Caribbean Center	**A. Douglas Kincaid**
Director, Multilingual and Multicultural Studies Center	**Rodolfo J. Cortina**
Associate Director, Multilingual and Multicultural Studies Center	**Tanya Saunders-Hamilton**
Director, Small Business Development Center	**Marvin Nesbit**
Executive Director, Southeast Florida Center of Aging	**Max B. Rothman**
Director, Women's Studies Center	**Marilyn Hoder-Salmon**

College of Arts and Sciences

College of Arts and Sciences

The College of Arts and Sciences furthers the study of fundamental intellectual disciplines, and serves the University's Colleges and Schools. The College is composed of nineteen departments, the School of Computer Science, and three interdisciplinary programs. It offers departmental programs of study leading to Bachelor's degrees in biological sciences, chemistry, communication, computer sciences, economics, English, geology, history, international relations, mathematics, modern languages (French, German, Italian, Portuguese, and Spanish), music, philosophy and religious studies, physics, political science, psychology, sociology and anthropology, statistics, theatre, and visual arts. The College also offers collegiate programs of study leading to Bachelor's degrees in environmental studies, humanities and liberal studies.

The College also offers Minor programs of study in art history, biology, chemistry, computer science, economics, English, environmental studies, French language and culture, general translation studies, geology, geography, history, human biology, humanities, journalism, international relations, mass communication, mathematical sciences, mathematics, music, philosophy, physics, political science, Portuguese, psychology, public relations, religious studies, sociology and anthropology, Spanish language and culture, statistics, telecommunication, theatre, and visual arts.

The College has academic programs leading to Master's degree in biology, chemistry, computer science, economics, environmental and urban systems (offered jointly with the College of Engineering and Applied Sciences), geology, history (offered jointly with FAU), hispanic studies, international studies, linguistics, mass communication, mathematical sciences; physics and psychology.

The College offers academic programs leading to the Ph.D. in computer science, economics, and psychology. Students can earn through the College certificates in: American Studies, Consumer Affairs, Environmental Studies, Ethnic Studies, Gerontological Studies, International Studies, Latin American and Caribbean Studies, Legal Translation and Court Interpreting, Linguistic Studies, Marine Science, Translation Studies, Tropical Commercial Botany, Western Social and Political Thought, and Women's Studies.

General Information

A student with an Associate of Arts degree from a community college, or having completed the equivalent coursework at a four year institution, will be admitted to a College's program.

Admission

Applicants to the College must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College.

The College serves students who need to complete general education and core curriculum requirements, and other requirements, to enroll in specific disciplines or professional programs.

Candidates to the Bachelor's degree must satisfy individual departmental requirements, and the following College requirements, in addition to the University-wide requirements:

1. In the last sixty semester hours of enrollment, the student must earn nine semester hours of elective credits through coursework outside the major; six of which are to be taken outside the department sponsoring the program.
2. Earn a grade of 'C' or higher in all courses required for the major.
3. Of the total number of hours submitted for graduation, a minimum of fifty semester hours must be in upper division courses. Additionally the student may submit, with departmental approval, up to ten semester hours of lower division courses taken at the University.

Moreover, students should consider earning a minor or a certificate with their major to enhance the liberal quality of their education.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Anthropology

Anthropology is part of the Department of Sociology and Anthropology. Information is available from the department's office. See Sociology/Anthropology section for program and course requirements.

Biological Sciences

John C. Makemson, *Associate Professor and Chairperson*
Carlo Ambrosino, *Research Scientist*
Charles Bigger, *Associate Professor*
Chun-fan Chen, *Associate Professor*
Leon A. Cuervo, *Associate Professor*
George H. Dalrymple, *Associate Professor*
Kelsey Downum, *Assistant Professor*
Walter M. Goldberg, *Associate Professor*
Kenneth Gordon, *Associate Professor*
Rene Herrera, *Assistant Professor*
Ronald D. Jones, *Assistant Professor*
Suzanne Koptur, *Assistant Professor*
David W. Lee, *Associate Professor*
Patsy A. McLaughlin, *Research Scientist*
Gerald L. Murison, *Associate Professor*
Case K. Okubo, *Associate Professor*
Peter Pechan, *Research Scientist*
L. Scott Quackenbush, *Assistant Professor*
Jennifer Richards, *Associate Professor*
Abraham M. Stein, *Professor*
Anitra Thorhaug, *Research Scientist*
Martin L. Tracey, *Professor*
Ophelia I. Weeks, *Assistant Professor*

Degree: **Bachelor of Science**

General Science Requirements

Required Courses: six semester hours of lectures and two semesters of laboratories in each of the following areas: general biology, general chemistry, general physics and organic chemistry; Calculus I and II or Statistics I and II.

Recommended Courses: Foreign language and calculus.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Required Courses

1.	PCB 3043	Ecology	3
2.	PCB 3513	Genetics	3
3.	BCH 3033+L	General Biochemistry	5
	or		
	PCB 3203+L	Cell Physiology	4
	or		
	PCB 4723+L	Animal Physiology	4
	or		
	BOT 4504+L	Plant Physiology	4
	or		
	MCB 4404+L	Microbial Physiology	4
	or		
	PCB 4724+L	Comparative Physiology	4
4.	BSC 4931	Senior Seminar	1
5.	Biology Electives [1,2,3]		**5 courses**
6.	Laboratory Requirement[4]		**4 Labs**
7.	Electives		**29-30**

[1] APB 1102C, APB 2040, APB 2170, APB 3253, BSC 2023, BSC 3913, BSC 3949, BSC 4919, BSC 4949, and EVR 3013, are not applicable to this requirement.

[2] Electives will be chosen in consultation with faculty advisor.

[3] At least one course must be taken from each of two groups: Cellular Physiological Group, (BCH 3033, 5280; BOT 4374, 4504, 5515, 5575, 5935; MCB 4203, 5505; OCB 5635; PCB 3203, 3241, 3702, 3703, 3704, 4024, 4233, 4254, 4524, 4723, 5195, 5205, 5259, 5615, 5666, 5777, 5835; ZOO 3753) and Organismal Field Biology Group (BOT 3010, 3353, 3723, 3810; BSC 5215, 5345, 5606, 5825, 5935; ENY 3004; MCB 3023, 4603; OCB 5635; PCB 4673, 5676, 5677, 5686, 5687; ZOO 3203, 3603, 3731, 3733, 3734, 3892, 4423, 4743, 5376, 5715, 5745).

[4] Laboratory requirement is met with four upper division Biology labs from PCB 3043, 3513, and any of the lab electives. This does not include the lab in requirement 3.

Students interested in teacher certification should contact the College of Education at 554-2721.

Master of Science in Biology
To be admitted into the Master's degree program in Biology, a student must:

1. Hold a Bachelor's degree in a relevant discipline from an accredited college or university;
2. Have a 3.0 average or higher during the last two years of the undergraduate program and a combined score (verbal, quantitative, and analytic) of 1600 or higher on the Graduate Record Exam.[1]
3. Two letters of recommendation of the student's academic potential.
4. Foreign students whose native language is not English must take the TOEFL (Test of English as a Foreign Language) and obtain a score of 500 or higher.
5. Receive approval from the Departmental Graduate Committee.

[1] If a student has taken the GRE before the new three-part system was introduced, a combined score of 1100 or higher is required on the verbal and quantitative sections.

Degree Requirements: The Master of Science in Biology consists of 36 credits, including a thesis based upon the student's original research. A maximum of six credits of graduate coursework may be transferred from other institutions, subject to the approval of the Graduate Committee.

Required Courses:

1.	BSC 5408	Experimental Biology	4
2.	BSC 6457	Introduction to Biological Research	3
3.	BSC 5931	Graduate Seminar (a 1 credit course taken twice)	2
4.	BSC 6971	Master's Thesis	6
5.	Electives[1]		21
6.	Foreign language competency[2]		

[1] These must include at least 16 credits of courses in the Department of Biological Sciences. No more than six credits can be transferred from another graduate program, subject to the approval of the Graduate Committee. At least six credits must be at the 6000-level (excluding thesis credits). Credits taken at the 4000-level beyond six, or at a lower levels, will not count towards graduation.

[2] Competency will be determined by examination consisting of a clear translation of technical material in a foreign language. Credits taken to gain such proficiency will not count toward graduation. As an alternative, students may substitute either six credits of computer programming or mathematics beyond Calculus II.

Graduation Requirements: A grade of 'C' or higher must be obtained in all courses with a cumulative average of 3.0 or higher in the 36 credits, and a thesis must be completed and accepted after presentation to an ad hoc Thesis Committee chosen by the student's Thesis advisor.

Special Programs

Bachelor of Science with Honors

Requirements
1. Admission to the Program

a. Permission of the department. Application should be made by letter to the Curriculum Committee from the applicant after completion of two semesters at the University and prior to two semesters before graduation. The letter should state the intended research problem and be countersigned by the Thesis Committee (advisor and mentor)

b. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.

2. Graduation Requirements:

a. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.

b. Completion of the BS requirements in Biology and Honors Research (BSC 4015, 1 to 3 credits, and Honors Thesis (BSC 4974, 1 credit).

c. Completion of Honors research in collaboration with a two-person Honors Committee, consisting of the honors advisor and one other member. The honors advisor must be a tenured or tenure-earning member of the department. The research results must be written in the form of an honors thesis and approved by the Honors Committee.

d. Deposit two completed approved copies of the Honors Thesis with the Department's Office: one copy to be kept in the department and the other to be deposited in the Library;

e. Presentation of the results of the Honors Research in the Graduate Seminar.

Minor in Biology
Required Courses: BSC 1010 and BSC 1011 with labs, and three additional courses, one of which must include a lab and one must be on the 4000- level or higher. Minimum credits beyond BSC 1010 and BSC 1011 with labs are 10 credits.

Pre-Medical, Dentistry, Veterinary Curricula
Programs of study satisfying requirements for admission to colleges of medicine, dentistry, and veterinary medicine are arranged in consultation with a faculty advisor. MAC 3311, CHM 3400, MCB 3023, and ZOO 3603 are recommended as fulfilling the requirements of many professional schools.

A seven year FIU/SECOM program in osteopathic medicine is offered; students must be admitted to FIU and SECOM. Interested students should consult a Biological Sciences advisor.

Certificate Programs in Marine Sciences and in Tropical Commercial Botany
See section on certificate programs under College of Arts and Sciences.

Course Descriptions

Note: Laboratories should be taken concurrently with or subsequent to lectures. Students should register for each separately.

Definition of Prefixes
APB—Applied Biology; BCH—Biochemistry; BOT—Botany; BSC—Introductory Biology; EVR—Environmental Studies; MCB—Microbiology; OCB—Oceanography (Biological); PCB—Process Cell Biology; ZOO—Zoology.

APB 1102C Introductory Botany (4). A history of mankind's study and use of plants, and a survey of plants of economic importance. Includes lab. No science prerequisite.

APB 2040 Foundations of Human Physiology (3)
APB 2040L Foundations of Human Physiology Lab (1). Functional survey of the organ systems of the human body. Intended primarily for non-science majors.

APB 2170 Introductory Microbiology (3)
APB 2170L Introductory Micro Lab (1). Basic concepts of microbes as pathogens, food spoilage and fermentative organisms. Microbial relationships to immunology, sanitation, pollution and geochemical cycling. Not applicable for majors in Biological Sciences or Medical Laboratory Sciences.

APB 3253 Human Sexual Biology (3). Development, structure, and function of the human organism from a sexual perspective, physio-biology of the adult human sexual response.

APB 4240 Human Systemic Physiology (3)
APB 4240L Human Systemic Physiology Lab (1). Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisite: Introductory human physiology or a college level course in biology or chemistry.

BCH 3033 General Biochemistry (4)
BCH 3033L Biochemistry Lab (1). Chemistry of proteins, lipids, carbohydrates, and nucleic acids; principles of enzymology, metabolism, and bioenergetics. Prerequisite: CHM 3211.

BCH 5280 Bioenergetics (3). The relationship of thermodynamics to living processes; energy transduction, enzymes in coupled systems. Prerequisite: Permission of instructor.

BCH 6935 Advanced Topics in Biochemistry (3). An intensive study of particular biochemical topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate standing.

BOT 3010C Plant Biology (4). An introduction to plant form, function and reproduction: the lives of algae, fungi, bryophytes, ferns, and flowering plants. The course is designed for majors and certificate students; includes a lab.

BOT 3353C Morphology of Tropical Plants (4). Origin and evolution of plants, especially vascular plants of tropical origin. Analysis of vascular plant anatomy and morphology, emphasizing the underlying principles of plant construction. Includes Lab. Prerequisite: A course in General Biology or permission of instructor.

BOT 3723C Taxonomy of Tropical Plants (4). Introduction to higher plant taxonomy, including nomenclature, modern systems of angiosperm classification, and angiosperm evolution. Emphasis on identification of tropical plant families and plants of economic importance. Course includes lab. Prerequisite: A course in General Biology.

BOT 3810 Economic Botany (3). The origins, domestication and uses of economically important plants. Prerequisites: BSC 1010, APB 1102 or equivalent.

BOT 4374C Plant Development (4). The development of vascular plants, with emphasis on experimental approach to plant anatomy, morphology, and reproduction. Practical instruction in tissue and organ culture. Includes Lab. Prerequisites: BOT 4504 and permission of instructor.

BOT 4504 Plant Physiology (3)
BOT 4504L Plant Physiology Lab (1). Plant growth and metabolism in relationship to environment. Photobiology, nutrient relations, transport, and hormones in relation to plant development and function. Prerequisite: Organic Chemistry I.

BOT 5515 Biochemistry of Plant Natural Products (3). Aspects of primary and secondary plant metabolism will be covered including biosynthesis and degradation of natural products as well as their biological/pharmacological activity. Prerequisite: CHM 3211 or BCH 3033.

BOT 5575 Photobiology (3)
BOT 5575L Photobiology Lab (1). The study of basic photochemical mechanisms as they occur in molecular biological processes such as plant growth, animal vision, bioluminescence, and radiation damage. Prerequisite: Permission of instructor.

BOT 6275 Plant Breeding Systems (3). Ecology, evolution, genetics and development of plant breeding systems. Prerequisite: Permission of Instructor.

BOT 6585C Plant Structure and Function (4). A quantitative assessment of plant architecture, morphology and anatomy in relationship to physiology, including the measurement of water relations, energy and gas exchange. Prerequisite: Permission of instructor.

BOT 6935 Advanced Topics in Botany (3). An intensive study of particular plant topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate standing.

BSC 1010 General Biology I (3)
BSC 1010L General Biology Lab (2). A survey of organismal biology; Microbiology, botany, and zoology.

BSC 1011 General Biology II (3)
BSC 1011L General Biology Lab (2). Biomolecules, cells, energy flow, genetics, and physiology.

BSC 2023 Human Biology (3)
BSC 2023L Human Biology Lab (1). Human structure and function with emphasis on aspects that relate to human development, genetics and neurobiology. Handicapping conditions, mental retardation and behavioral disorders. For non-science majors.

BSC 3913, 4919, 6916, Student Research Lab (1-3). Independent laboratory study in a project or projects of the student's choice. Registration by consultation with instructor. May be repeated for additional credit.

BSC 3949, 4949 Cooperative Education in Biology (1-3). A student majoring in biological sciences may spend several terms fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Co-op Education and major department.

BSC 4915L Honors Research (1-3). Laboratory and/or field study in consultation with an Honors Thesis advisor. Prerequisite: Science and Math GPA 3.5.

BSC 4931 Senior Seminar (1). An exploration of various research works in biological sciences. Oral presentation by the students required.

BSC 4934 Topics in Biology (1-3). An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum.

BSC 4974 Honors Thesis (1). Writing an Honors Thesis. Prerequisite: BSC 4915.

BSC 5215 Introduction to the Mechanics of Biological Systems (3). Mechanical principles are used to analyze the structure and function of plants and animals; especially the statics of bone systems, and support structures of plants. Prerequisite: Permission of instructor.

BSC 5345 Techniques in Scientific Diving (4). Planning and conducting safe scientific diving operations and research. Prerequisite: Civilian Diving Certificate (NAUI/PADI) or equivalent.

BSC 5408C Experimental Biology (4). Laboratory techniques used in biological research.

BSC 5409C Biology Laboratory Instrumentation for Secondary Teachers I (3). Principles and practice of selected instrumental techniques. Spectrophotometry, electrical measurements and separatory techniques. Not for BSC majors. Prerequisites: Three undergraduate credits in physics, three in chemistry, and six in biology.

BSC 5606 Biological Systematics (3). Systems of nomenclature and contemporary topics in classification, including molecular evidence, numerical methods and cladistics. Prerequisite: Permission of instructor.

BSC 5825 Wildlife Biology (3). The study of game and non-game wildlife with emphasis on management and population regulation. Prerequisite: Permission of Instructor.

BSC 5931 Graduate Seminar (1). Oral presentation of an assigned literature survey. Required of candidates in the Honors and Graduate Programs.

BSC 5935, 6936 Topics in Biology (1-3). An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Senior or graduate standing.

BSC 5945 Supervised Teaching in Biology (1-2). Teaching in a biological discipline, under the supervision of departmental faculty. Prerequisite: Graduate standing.

BSC 6415 Animal Cells in Culture (3)
BSC 6415L Animal Cells in Culture Lab (2). Biology of animal cells cultured in semisynthetic media: cell nutrition growth, cell cycle analysis, cellular transformation and differentiation, heterokaryons and somatic cell genetics. Prerequisite: Consent of instructor.

BSC 6457 Introduction to Biological Research (3). Analysis of existing biological data and experimental design. Prerequisite: Graduate standing.

BSC 6926 Workshop in Biology (1-2). A short intensive treatment of a specialized research topic or technique. Prerequisite: Permission of instructor.

BSC 6948 Laboratory Visitation (1-2). Student visits to three laboratories to learn techniques and concepts applicable to M.S. or Ph.D. research. Prerequisite: Permission of instructor.

BSC 6971 Master's Thesis (1-6). Completion of dissertation. Prerequisite: Permission of major professor.

BSC 8980 Ph.D. Dissertation (6).

EVR 3013C Ecology of South Florida (3)
EVR 5061 South Florida Ecology-Field Studies (3). See listing under Environmental Studies.

ENY 3004 General Entomology (3)
ENY 3004L Entomology Lab (1). The morphology, systematics, physiology and ecology of the major insect orders, and introduction to basic field procedures. Prerequisite: BSC 1011.

MCB 3023 General Microbiology (3)
MCB 3023L General Microbiology Lab (1). Introduction to the principles and techniques of microbiology, genetics, taxonomy, biochemistry and ecology of microorganisms. Prerequisites: One semester of Organic Chemistry; two courses in Biology.

MCB 4203 Microbial Pathogenicity (3)
MCB 4203L Microbial Path Lab (1). Host-parasite relationships: physiology of bacterial, fungal and viral pathogens emphasizing mecha-

nisms of pathogenicity and the host response. Prerequisites: MCB 3023

MCB 4404 Microbial Physiology (3)
MCB 4404L Microbial Physiology Lab (1). Introduction to the study of physiological and metabolic activities of microorganisms and processes that affect them. Prerequisite: MCB 3023, MCB 3023L.

MCB 4603 Microbial Ecology (3)
MCB 4603L Microbial Ecology (1). Principles and applications of microbial interactions with the environment: physical, chemical, and biological. Prerequisite: MCB 3023, MCB 3023L.

MCB 5505 Virology (3)
MCB 5505L Virology Lab (1). Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development, virus pathogens, and carcinogens. Prerequisites: Biochemistry, Genetics, and Organic Chemistry.

MCB 6418 Bacterial Mineral Cycling (3). Energy and metabolic processes; detrital food chains; carbon, nitrogen, sulfur and trace mineral cycling; chemoautotrophy; global element cycles. Prerequisite: Permission of Instructor.

MCB 6445 Microbial Bioluminescence (3). Molecular mechanisms, physiology, genetics and ecology of bioluminescence in microorganisms, particularly bacteria. Prerequisite: Permission of Instructor.

MCB 6735 Marine Microbiology (3)
MCB 6735L Marine Microbiology Lab (1). Physiological-ecological study of the distribution in situ activity and biology of marine bacteria; public health significance of pathogens and microbial toxins conveyed to man; diseases of marine animals. Prerequisites: MCB 3023 & L and BCH 3033 & L or PCB 3023 & L.

MCB 6935 Advanced Topics in Microbiology (3). An intensive study of particular microbiological topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate standing.

OCB 2003 Introductory Marine Biology (3)
OCB 2003L Introductory Marine Biology Lab (1). The basic biological aspects of the marine environment, especially tropical.

OCB 4674L Techniques in Biological Oceanography (1). A laboratory course designed to acquaint the student with biological sampling techniques at sea. Shipboard experience will be required as part of the course. Prerequisites: Previous course in marine biology; registration in the Marine Science certificate program and permission of instructor.

OCB 5635 Coral Reef Ecology (3)
OCB 5635L Coral Reef Ecology Lab (1). Zoogeography, ecology and zonation, morphology, and paleontology of coral reefs around the world with emphasis on Caribbean forms. Growth, physiology, productivity, as well as effects of predation, competition and pollution on coral reefs are also discussed.

PCB 2510 Introductory Genetics (3)
PCB 2510L Introductory Genetics Lab (1). Principles of Mendelian and Molecular genetics with selected examples of applications such as genetic engineering and twin studies.

PCB 3043 Ecology (3)
PCB 3043L Ecology Lab (1). The basic principles governing the interaction of organism and environment. Trophic structure and energetics, species diversity, evolution of populations, biogeochemical cycles.

PCB 3203 Cell Physiology (3)
PCB 3203L Cell Physiology Lab (1). Biochemical and biophysical principles of cell physiology: enzyme structure and function, energy transductions and conservation, electrical and chemical signals, cell cycle and cell division. Prerequisites: Eight semester hours each of General Biology, General Physics, and Organic Chemistry.

PCB 3241 Physiology of Aging (2). Introductory treatment of the physiology of organ systems with emphasis on the decline in organ function with aging and on the resultant limitations in physiological performance.

PCB 3513 Genetics (3)
PCB 3513L Genetics Lab (1). Mendelian inheritance and introduction to molecular genetics. Prerequisites: BSC 1011 and CHM 3210.

PCB 3702 Intermediate Human Physiology (3)
PCB 3702L Intermediate Human Physiology Lab (1). Functions of the human body and the physico-chemical mechanisms responsible for each organ's function. Prerequisite: General Biology.

PCB 3703 Human Physiology I (3)
PCB 3703L Human Physiology I Lab (1). Basic facts and concepts relating to the physiology of cells and nervous, muscular, and cardiovascular systems, with emphasis on regulatory mechanisms and abnormal physiology. Prerequisites: One year of Biology or Zoology; Chemistry, and Physics.

PCB 3704 Human Physiology II (3)
PCB 3704L Human Physiology II Lab (1). Physiology of respiratory, gastrointestinal, excretory, endocrine and reproductive systems. Continuation of PCB 3703. Prerequisites: One year of Biology or Zoology; Chemistry, and Physics.

PCB 4024C Cell Biology (4). A structural and molecular analysis of cell function. Prerequisite: PCB 3513.

PCB 4233 Immunology (3)
PCB 4233L Immunology Lab (1). Fundamentals of immunology including antibody structure, immunopathology, molecular recognition at cell surfaces and immunological aspects of cancer biology. Prerequisite: General Microbiology or permission of instructor.

PCB 4254 Developmental Biology (3)
PCB 4254L Developmental Biology Lab (1). Comprehensive survey of principles of development and critical analysis of methods used to study these problems. Prerequisites: PCB 3513 and PCB 3203 or BCH 3033.

PCB 4524 Molecular Biology (3)
PCB 4524L Molecular Biology Lab (1). Advanced nucleic acid and protein biochemistry: biosynthesis of macromolecules and molecular genetics. Prerequisite: Biochemistry or Genetics.

PCB 4673 Evolution (3). A study of the synthetic theory of evolution, its historic and experimental justification and the mechanisms of natural selection. Prerequisites: Genetics, Ecology, or permission of instructor.

PCB 4723 Animal Physiology (3)
PCB 4723L Animal Physiology Lab (1). Advanced study of physiological mechanisms employed by animals to maintain function of the organ systems and to interact with the environment. Prerequisites: Organic Chemistry and Cell Physiology or Biochemistry.

PCB 4724 Comparative Physiology (3)
PCB 4724L Comparative Physiology Lab (1). Regulation of the internal environment: osmotic gastrointestinal, metabolic, circulatory and respiratory physiology. Prerequisites: General Biology and Organic Chemistry.

PCB 5195 Histochemistry/Microtechnique (3)
PCB 5195L Histochemistry/Microtechnique Lab (1). Chemistry and use of fixatives and dyes; histochemistry emphasizes procedures used in research and pathology labs including techniques for enzymes, protein, carbohydrate, nucleic acids and lipids. Prerequisite: Biochemistry or Cell Physiology.

PCB 5205 Cell Physiology and Biophysics (3). Fundamental biophysical properties of membranes, transport of passive and active electrical phenomena. Biochemistry and biophysics of contractile mechanisms and information transfer. Prerequisites: Calculus and Physical Chemistry or permission of instructor.

PCB 5259 Topics in Developmental Biology (3). Molecular and cellular mechanisms in the development or plants and animals. Prerequisite: Senior status or permission of instructor.

PCB 5615 Molecular and Organismal Evolution (3). The evolutionary relationships among nucleotides and proteins as well as the processes which yield these relationships. The possible molecular events leading to speciation. Prerequisites: Genetics and Biochemistry.

PCB 5676 Evolution and Development of Sex (3). The evolutionary explanations for the evolution of sexual reproduction and models of sexual differentiation. Prerequisites: Genetics and Evolution or permission of instructor.

PCB 5677 Evolution and Development (3). The models and evidence for the interaction of development and evolution, using both plant and animal systems. Prerequisite: Permission of instructor.

PCB 5686C Population Biology (4). Intrinsic properties of natural and theoretical populations and their dynamics and interactions, and responses to disturbance. Includes field problems and computer exercises. Prerequisite: A course in genetics, evolution, or permission of instructor.

PCB 5687 Evolutionary Ecology (3). Adaptations and interactions of plants and animals in natural and disturbed habitats. Prerequisite: PCB 3043 or equivalent.

PCB 5835 Neurophysiology (3)
PCB 5835L Neurophysiology (1). Comparative neurophysiology; physico-chemical mechanisms of resting and action potentials; synaptic transmission; neural coding and integration; sensory-motor function and neurophysiological basis of behavior. Prerequisites: Biochemistry or Cell Physiology, Calculus.

PCB 6175C Biological Electron Microscopy (5). Principles and techniques of transmission and scanning electron microscopy as applied to biological materials. Lecture-laboratory combination, enrollment limited. Prerequisite: Permission of instructor.

PCB 6235 Comparative Immunology (3). An analysis of the immune systems and mechanisms of invertebrate and vertebrate animals. Prerequisite: Permission of instructor.

PCB 6237 Immunogenetics (3). The impact of classical and molecular genetic analyses on our understanding of the immune response. Prerequisite: A course in Immunology and Genetics.

PCB 6255 Gene Expression in Animal Development (3). Introduction to the molecular biology of animal development; DNA structure, chromatin, transcription, molecular strategies in development. Prerequisite: Permission of instructor.

PCB 6345C Quantitative Field Ecology (6). Methodology in the description and analysis of populations and communities. Prerequisites: Permission of instructor and STA 3123 or equivalent.

PCB 6405 Biochemical Ecology (3). Principles of chemical communication between diverse organisms and the importance of a variety of allelochemicals in community structure. Prerequisite: Permission of instructor.

PCB 6526 Advanced Molecular Biology (3). Molecular genetics, controlling mechanisms, recombinant DNA, gene splicing and gene vector construction of viral, bacterial, plant and animal systems. Prerequisite: Permission of instructor.

PCB 6566 Chromosome Structure and Function (3). Structural organization and function of the eukaryotic chromosome: euchromatin/heterochromatin, replication, repair, DNA sequence organization. Prerequisite: Permission of instructor.

PCB 6786 Membrane Biophysics (3). The structure and function of cell membranes: ionic transport, passive electrical properties, and excitation. Prerequisite: Permission of instructor.

PCB 6875 Trends in Neurobiology (2). Critical analyses and discussions of selected research articles of current interests. Seminar format. Prerequisite: Permission of instructor.

PCB 6935 Advanced Topics in Genetics (3). An intensive study of particular genetical topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate standing.

PCB 7675 Reproductive Immunology (3). Molecular and cellular interactions in early development, ontogenetics, and mother and fetus. Prerequisite: Permission of instructor.

PCB 7676 Evolution and Development of Sex (3). Models of sexual differentiation and reproduction treated in an evolutionary context. Prerequisite: Permission of instructor.

PCB 7689 Advanced Topics in Population and Evolutionary Genetics (3). Comparison of the synthetic and mutational drift hypotheses; relationships between molecular and phenotypic evolutionary rates and the phenotypic effects of various forms of mutation. Prerequisite: Permission of instructor.

ZOO 3203C Invertebrate Zoology (4). Taxonomy, anatomy, development, physiology and ecology of major invertebrate groups, including terrestrial and aquatic phyla. Prerequisite: BSC 1010 or equivalent.

ZOO 3603 Embryology (3)
ZOO 3603L Embryology Lab (1). Animal morphogenesis. Laboratory must be taken with lecture. Prerequisites: One year of general biology with laboratory or general zoology and general botany with laboratory.

ZOO 3731 Human Anatomy (4)
ZOO 3731L Human Anatomy Demonstration (1). Survey of organ systems of the human body with major emphasis on the skeletal, muscular, and peripheral nervous system. Demonstrations of the prosected human cadaver. Prerequisite: One year of general biology with laboratory.

ZOO 3733 Human Gross Anatomy I (3)
ZOO 3733L Human Gross Anat I Lab (1). Structure and function of various tissues, organs and organ systems of the human body. Dissection of human cadaver material to reveal the relationships of the various organ systems of the body. Prerequisites: BSC 1011, BSC 1011L, CHM 1046, CHM 1046L, PHY 3054, or equivalents.

ZOO 3734 Human Gross Anatomy II (3)
ZOO 3734L Human Gross Anat II Lab (1). Continuation of ZOO 3733. Prerequisites: BSC 1011, BSC 1011L, CHM 1046, CHM 1046L, or equivalents.

ZOO 3753 Histology (3)
ZOO 3753L Histology Lab (1). Microscopic anatomy of cells, tissues and organs. Prerequisites: General biology and organic chemistry.

ZOO 3892C Biology of Captive Wildlife (3). Behavior, nutrition, physiology, anatomy, pathology and diseases of captive wildlife. Taught at Metrozoo. Prerequisite: General Biology or permission of instructor.

ZOO 4423C Herpetology (4). Study of the biology of reptiles and amphibians with emphasis on the natural history and ecology of local species. Prerequisites: One year of biological sciences and ecology or permission of instructor.

ZOO 4743 Neuroscience (4). Structure and function of the human nervous system. Dissection and demonstration of the various parts of the human brain. Prerequisites: One course in physiology and one course in human anatomy.

ZOO 5376 Animal Design and Movement (4). Basic biomechanical and behavioral theories of how animals feed and move. Prerequisites: BSC 1010, BSC 1011, PHY 3053, and PHY 3054 or equivalent.

ZOO 5715C Comparative Vertebrate Anatomy (4). The structural diversity and classification of vertebrates and the evolution of various organ systems. Dissection of a variety of vertebrate specimens to reveal the relationships of the various organ systems of the body. Prerequisite: One year of general biology with laboratory or general zoology with laboratory.

ZOO 5732 Advanced Anatomy Demonstration (1-4). Dissection and demonstration of the human body with the emphasis on structure and function. May be repeated to a maximum of 8 credits. Prerequisite: ZOO 3733L and ZOO 3734L.

ZOO 5745 Advanced Neuroanatomy (3). In-depth knowledge of the embryonic development, structure, and function of the human nervous system with a great deal of clinical consideration. Prerequisite: ZOO 4743 or permission of instructor.

ZOO 6378C Experimental Approaches to Functional Morphology (4). The use of mechanical analysis, electromyography, high-speed cinematography and other experimental techniques to solve problems in functional morphology. Prerequisite: A course in Anatomy.

ZOO 6935 Advanced Topics in Zoology (3). An intensive study of particular topics not otherwise offered in the curriculum. May be repeated for credit with different subject content. Prerequisite: Graduate standing.

Chemistry

Leonard S. Keller, *Associate Professor and Chairperson*
Arthur W. Herriott, *Professor and Associate Dean*
Jeffrey A. Joens, *Assistant Professor*

John T. Landrum, *Associate Professor and Graduate Coordinator*
Jesus P. Lopez, *Assistant Professor*
Ramon Lopez de la Vega, *Assistant Professor*
Howard E. Moore, *Professor*
Zaida C. Morales-Martinez, *Instructor and Coordinator of Chemistry Labs*
John H. Parker, *Professor*
J. Martin Quirke, *Associate Professor*
Donna L. Ticknor, *Lecturer*

Degree: **Bachelor of Science**

The chemistry program is accredited by the American Chemical Society and prepares the student for graduate study or a professional career as a chemist in industry, in government service, or in secondary school teaching. (Students interested in secondary teacher certification should contact the College of Education at 554-2721.)

Lower Division Preparation
One year of general chemistry with laboratory; algebra and trigonometry, (advanced high school courses in algebra and trigonometry are acceptable). To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable to the program.

Lower or Upper Division Preparation
Differential and Integral Calculus I & II (MAC 3311 & 3312); Organic Chemistry I & II (CHM 3210, 3210L & 3211, 3211L); Physics with Calculus (PHY 3048, 3048L, 3049, 3049L).

Upper Division Program: (60 semester hours)
At least 36 credits in chemistry to include the following:

CHM 3120	Quantitative Analysis	3
CHM 3120L	Quantitative Analysis Lab	2
CHM 3410	Physical Chemistry I	4
CHM 3411	Physical Chemistry II	4
CHM 3411L	Physical Chemistry Lab I	1
CHM 3412L	Physical Chemistry Lab II	2
CHM 4130	Modern Analytical Chemistry	3
CHM 4130L	Modern Analytical Chemistry Lab	2
CHM 4220	Advanced Organic Chemistry	3
CHM 4320L	Research Techniques in Organic Chemistry	2
CHM 4610	Advanced Inorganic Chemistry	3
CHM 4910L	Undergraduate Research Chemistry	3
CHM 4930	Senior Seminar	1
One additional senior-level (4000) Chemistry course		3

At least three additional credits to be chosen from the following list:

MAP 3302	Differential Equations	3
CGS 3420	FORTRAN for Engineers	3
MAC 3313	Multivariable Calculus	3
Electives		21

Degree: **Bachelor of Arts**

This program is designed for students preparing for careers in medicine, dentistry, environmental studies, veterinary medicine, patent law, secondary science education, or criminalistics chemistry. Students should complement the basic curriculum with suitable electives chosen in consultation with an advisor. (Students interested in secondary teacher certification should contact the College of Education at 554-2721.)

Lower Division Preparation
One year of general chemistry with laboratory; one year of general biology with laboratory; algebra with trigonometry (advanced high school courses in algebra and trigonometry are acceptable).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable to the program.

Lower or Upper Division Preparation
Differential and Integral Calculus I & II (MAC 3311 & 3312); Organic Chemistry I & II (CHM 3210, 3210L & 3211,3210L); Physics (either PHY 3048, 3048L and 3049, 3049L or PHY 3053, 3048L and 3054, 3049L).

Upper Division Program: (60 semester hours)
At least 16 credits in chemistry to include the following:

CHM 3120	Quantitative Analysis	3
CHM 3120L	Quantitative Analysis Lab	2
CHM 3400	Fundamentals of Physical Chemistry	3
CHM 3400L	Fundamentals of Physical Chemistry Lab	1
CHM 4220	Advanced Organic Chemistry	3
CHM 4230L	Structure Determination Lab	1
And at least one additional senior level (4000) course in chemistry		3
Electives		44

Minor in Chemistry
The Minor requires at least 23 credits in chemistry to include:

General Chemistry I & II (CHM 1045, 1045L, and 1046, 1046L)	9
Quantitative Analysis CHM 3120, 3120L)	5
Organic Chemistry I & II (CHM 3210, 3210L and 3211, 3211L)	9

At least half of the credits to be counted towards the minor must be taken at the University.

Criminalistics-Chemistry Program
The Criminalistics-chemistry Core Requirements are the same as the requirements for the BA degree in chemistry plus Modern Analytical Chemistry (CHM 4130, 4130L). (Degree granted by Department of Chemistry.) Internship: A 3-6 credit internship in the laboratory of a participating criminal justice agency.

Criminal Justice Coursework: The student should take nine credits of criminal justice courses in consultation with an advisor in the Department of Criminal Justice, 940-5850.

Electives: Coursework in the behavioral and political sciences, and upper division coursework in the biological sciences is recommended to total 60 semester hours.

PreMedical, Dentistry, Veterinary, Optometry Curricula
Students who have satisfied the requirements for either the BA or the BS degree in chemistry will also have satisfied the course requirements for admission to professional schools in the above areas. Additional coursework in chemistry and biology relevant to the career objectives of the student may also be taken as electives. Interested students should consult a Chemistry Department faculty advisor.

A seven year FIU/SECOM program in osteopathic medicine is also offered; students must be admitted to FIU and to SECOM (Southeastern College of Osteopathic Medicine).

Cooperative Education
Students seeking the baccalaureate degree in chemistry may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in an industrial or governmental chemistry laboratory. For further information consult the Department of Chemistry or the Department of Cooperative Education at 554-2423.

Department Policy
The Department of Chemistry does not award credit for courses by examination; it does, however, award credit for AP Chemistry with a score of 3 or higher and with evidence of a suitable laboratory experience. The department does not award credit for life experience.

Master of Science in Chemistry
The Master of Science degree in chemistry is designed to train chemists for research and development oriented positions in industry, in government service and to provide advanced study in the field for educators teaching at the secondary school and junior college level. The Master of Science degree program is a two year degree for full time students. Part-time students are encouraged to enroll. All candidates for the Master of Science degree will do an original thesis research project under the direction of a chemistry faculty member. Students graduating with a Master of Science degree in chemistry are well prepared to continue their post-graduate training toward the Ph.D., to work in industry, to work in governmental labs, and to attend Professional (Medical, Dental or Veterinary) Schools. The Master of Science degree widens the career options available to chemistry majors over the Bachelor of Arts or Bachelor of Science degrees.

Graduate coursework in the area of chemistry is appropriate for meeting the continuing education requirements of educators.

Undergraduate Preparation
A bachelor of science degree in chemistry or its equivalent is required of students seeking admission to the Master of Science Program. Individuals having a degree not meeting this requirement will be required to take courses at the undergraduate level to remove any deficiencies. A GPA of 3.0 or above in the last 60 semester hours of upper division coursework or a GRE score of 1000 on the combined quantitative and verbal exams is the minimum academic standard for admission to the program.

Graduate Curriculum
The requirements for Completion of the Master of Science degree are: A core curriculum of nine semester hours plus a minimum of three elective courses in chemistry or suitable cognate areas (including, but not limited to, physics, geology, biology, and mathematics) to be taken at the discretion of the student and at the direction of the Student's Thesis Advisory Committee. Each graduate student must also register for Graduate Seminar during each semester of study and must complete a minimum of 2 semester hours of graduate seminar, 4 semester hours of graduate research and 8 semester hours of thesis research. A grade of 'C' or higher must be obtained in all courses with a cumulative grade point average of 3.0 or higher, and a thesis must be completed and accepted after presentation to the Thesis Committee.

Core Curriculum

CHM 5181	Special Topics in Analytical Chemistry	3
CHM 5380	Special Topics in Organic Chemistry	3
CHM 6430	Advanced Thermodynamics	3
CHM 6935	Graduate Seminar (min)	2
CHM 6910L	Graduate Research (min)	4
CHM 6970	Thesis Research (min)	8

Elective courses: (minimum 3 required)

CHM 5440	Kinetics and Catalysis	3
CHM 5280	Natural Products and Biosynthesis	3
CHM 5250	Organic Synthesis	3
CHM 5260	Physical Organic Chemistry	3
CHM 6511	Polymer Chemistry	3
CHM 6480	Quantum Chemistry	3
CHM 5681	Special Topics in Inorganic Chemistry	3
CHM 5581	Special Topics in Physical Chemistry	3
CHM 5490	Spectroscopy and Molecular Structure	3
CHM 6461	Statistical Thermodynamics	3

Financial Support
Full-time graduate students who are in good academic standing are eligible for financial support. Teaching and research assistantships are available on a competitive basis. Students may also apply for waiver of both In-State and Out-of-State tuition. Inquiries concerning application to the program and availability of financial support should be directed to the Chemistry Graduate Coordinator.

Course Descriptions

Note: Laboratories may not be taken prior to the corresponding course. Laboratories must be taken concurrently where noted. Students must register for the laboratory separately.

Definition of Prefixes
CHM—Chemistry; CHS—Chemistry—Specialized; ISC—Interdisciplinary Natural Sciences; OCC—Oceanography—Chemical.

CHM 1032 Survey of General Chemistry (3)
CHM 1032L Survey of General Chemistry Lab (1). A basic one-semester survey course in chemistry for non-majors. Topics include atomic structure, stoichiometry, bonding, equilibrium, electrochemistry. Does not fulfill requirements for chemistry, biology, or premed majors. Laboratory must be taken concurrently with the course. Prerequisite: One year of high school or college algebra.

CHM 1045 General Chemistry I (4)
CHM 1045L General Chemistry Lab I (1). Fundamental principles of general chemistry: states of matter, atomic structure, stoichiometry, chemical bonding, acid-base reactions, gas laws. Concurrent registration in both lecture and laboratory is required. Prerequisite: Second year high school algebra or college algebra.

CHM 1046 General Chemistry II (3)
CHM 1046L General Chemistry Lab II (1). Continuation of General Chemistry I (CHM 1045). Fundamental principles of chemistry: thermodynamics, solutions, kinetics, equilibrium and electrochemistry. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1045, CHM 1045L.

CHM 3120 Quantitative Analysis (3)
CHM 3120L Quantitative Analysis Lab (2). Fundamentals of classical quantitative analysis. Topics include theory of precipitation, acid-base and oxidation-reduction reactions, as well as an introduction to spectrophotometric methods of analysis, ion-exchange techniques and complex formation. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1046, CHM 1046L.

CHM 3200 Survey of Organic Chemistry (3)
CHM 3200L Survey of Organic Chemistry Lab (1). A basic one-semester survey course in organic chemistry for non-majors presenting a broad background in the reactions and structures of organic molecules. Does not fulfill requirements for chemistry, biology, or pre-med majors. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1032, CHM 1032L, or CHM 1046, CHM 1046L.

CHM 3210 Organic Chemistry I (4)
CHM 3210L Organic Chemistry Lab I (1). An introduction to chemical bonding and atomic structure theory as it pertains to the chemistry of carbon compounds. Correlation between structure and reactivity of organic molecules followed by a systematic look at the various reaction types using reaction mechanisms as a tool for study. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1046, CHM 1046L.

CHM 3211 Organic Chemistry II (3)
CHM 3211L Organic Chemistry Lab II (1). Continuation of CHM 3210, 3210L Concurrent registration in lecture and laboratory is required. Prerequisites: CHM 3210, 3210L.

CHM 3400 Fundamentals of Physical Chemistry (3). CHM 3400L Fundamentals of Physical Chemistry Lab (1). Principles of physical chemistry. Topics include thermodynamics, equilibria, electrochemistry, and reaction kinetics. Laboratory must be taken concurrently with the course. Prerequisites: MAC 3411, 3412; PHY 3048, 3048L PHY 3049, 3049L, or PHY 3053, 3048L, and 3054, 3049L, CHM 3120, 3120L.

CHM 3410 Physical Chemistry I (4). Principles of thermodynamics, gas laws, kinetic theory of gases, chemical equilibrium. Prerequisites: MAC 3411, 3412; PHY 3048, 3048L, 3049, 3049L, and CHM 3120, 3120L, 3211, and 3211L.

CHM 3411 Physical Chemistry II (4)
CHM 3411L Physical Chemistry Lab I (1). A continuation of CHM 3410. Phase equilibrium of solids, liquids and gases, solutions of electrolytes and non-electrolytes, electrochemistry, kinetics in the gas phase and in solution, and quantum mechanics. Laboratory must be taken concurrently with the course. Prerequisite: CHM 3410.

CHM 3412L Physical Chemistry Lab II (2). Laboratory experiments illustrating topics and concepts covered in CHM 3411. Must be taken after successful completion of CHM 3411 and 3411L. Prerequisites: CHM 3411 and 3411L.

CHM 3949, CHM 4949 Cooperative Education in Chemistry (3). One semester of full-time supervised work in an outside laboratory. Limited to students admitted to the University Coop Program. A written report and supervisor evaluation will be required of each student.

CHM 4090L Introduction to Scientific Glassblowing (1). Basic glassblowing operations with glass tubing and rod are taught. Emphasis is on making and repair of scientific glassware. No prerequisites.

CHM 4130 Modern Analytical Chemistry (3)
CHM 4130L Modern Analytical Chemistry Lab (2). Instrumental methods of chemical analysis, including electroanalytical methods, gas and liquid chromatography, mass spectrometry, x-ray fluorescence, and spectrophotometric methods. Laboratory must be taken concurrently with the lecture. Prerequisites:

CHM 3120, 3120L, CHM 3211, 3211L, CHM 3410, PHY 3048, 3048L, PHY 3049, 3049L, or permission of instructor.

CHM 4180 Special Topics in Analytical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4130 or permission of instructor.

CHM 4220 Advanced Organic Chemistry (3). An intensive examination of the major areas of contemporary organic chemistry. Reactive intermediates, pericyclic reactions, molecular rearrangements, and modern synthetic methods are among the topics covered. Prerequisites: CHM 3211, 3211L.

CHM 4230L Structure Determination Lab (1). The qualitative analysis of organic compounds using modern spectroscopic, chromatographic and chemical methods. (Restricted to B.A. Chemistry majors). Prerequisites: CHM 3211, 3211L.

CHM 4300 Bio-Organic Chemistry (3). Chemistry of naturally occurring organic compounds of biological importance. The relationship between organic chemistry and the chemical reactions which constitute the living organism. Prerequisite: CHM 3211, 3211L.

CHM 4310 Special Topics in Organic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisites: CHM 3211 and permission of instructor.

CHM 4320L Research Techniques in Organic Chemistry (2). Practical instruction in the more advanced manipulations and procedures of the modern chemistry laboratory. Restricted to B.S. chemistry majors. Prerequisites: CHM 3120, 3211, 3211L, 3410, 3411L.

CHM 4580 Special Topics in Physical Chemistry (VAR). An intensive examination of one or more areas selected by the instructor and students. Prerequisite: Permission of instructor.

CHM 4610 Advanced Inorganic Chemistry (3). Atomic structure, periodicity, bonding and structure of inorganic compounds, solution chemistry, ligand field theory, organometallic chemistry, and specific chemistry of the elements. Prerequisites: CHM 3120, 3211, 3411.

CHM 4610L Advanced Inorganic Chemistry Lab (1). Synthesis, purification, and study of coordination and organometallic compounds. Prerequisite: CHM 3411. Corequisite: CHM 4610.

CHM 4680 Special Topics in Inorganic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4610 or permission of instructor.

CHM 4910L Undergraduate Research in Chemistry (VAR). The student works directly with a professor on a research project. Credit is assigned based on 4 hr/wk laboratory/library work per credit hour. May be repeated. A written report is required.

CHM 4930 Senior Seminar (1). Each student will make an oral presentation to faculty and other students enrolled in the seminar course. The subject of the seminar may be either a report of results of an independent study project or a survey of the recent literature on an assigned topic.

CHM 5150 Graduate Analytical Methods (3). Analysis of analytical data, electrochemistry, spectroanalytical techniques, chromatography, survey of new analytical methods. Prerequisite: Graduate standing or permission of instructor.

CHM 5181 Special Topics in Analytical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4130 or permission of instructor.

CHM 5225 Graduate Organic Chemistry (3). Advanced topics in organic chemistry. Structure of organic molecules, reaction mechanisms, organic synthesis, and natural product chemistry. Core course. Prerequisite: CHM 4220 or permission of instructor.

CHM 5250 Organic Synthesis (3). Use of classical and modern reactions in the design and construction of complex organic molecules including natural products. Some topics covered will be construction reactions, refunctionalization, stereochemistry and conformational analysis. Prerequisite: CHM 4220, or permission of instructor.

CHM 5260 Physical Organic Chemistry (3). A series of topics will be discussed including molecular orbital theory as it pertains to organic molecules, kinetic and thermodynamic approaches to the study of reaction mechanisms, quantitative approaches to conformational analysis, etc. Prerequisite: CHM 4220 or permission of instructor.

CHM 5280 Natural Products Chemistry and Biosynthesis (3). Studies of the chemical origins (biosynthesis), properties, and synthesis of the various classes of naturally occurring compounds: terpenes, steroids, alkaloids, acetogenins. Prerequisite: CHM 4220 or permission of instructor.

CHM 5380 Special Topics in Organic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4220 or permission of instructor.

CHM 5425 Graduate Physical Chemistry (4). Prequantum physics, the Schrodinger equation and its solutions, atoms and molecules, rotational, vibrational, and electronic spectroscopy. Prerequisite: Graduate standing or permission of instructor.

CHM 5440 Kinetics and Catalysis (3). Theory of elementary reactions, activated complex theory, mechanisms of complex reactions. Prerequisites: CHM 3411, MAP 3302.

CHM 5490 Spectroscopy and Molecular Structure (3). Introduction to atomic and molecular quantum states, selection rules, and fundamental principles of spectroscopy. Introduction to group theory and to the theory of UV/visible, infrared, Raman, microwave, nmr, photoelectron, and mass spectroscopies, and the applications of these methods to the determination of fundamental physical properties and the structure of organic and inorganic molecules. Prerequisite: Physical Chemistry.

CHM 5490L Spectroscopy and Molecular Structure Lab (1). The theory of spectroscopy and the use of modern instrumentation to investigate molecular structure. Prerequisites: CHM 3211, 3211L. Corequisite: PHY 4604 or CHM 5490.

CHM 5517 Solid State (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, and dielectric materials. Prerequisite: CHM 5490 or PHY 4604.

CHM 5581 Special Topics in Physical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 3411 or permission of instructor.

CHM 5650 Physical Inorganic Chemistry (3). Introduction to use of physical methods to determine structure of inorganic compounds. Prerequisite: CHM 4610 or permission of instructor.

CHM 5681 Special Topics in Inorganic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4610 or permission of instructor.

CHM 6157 Advanced Analytical Chemistry (3). Modern analytical methods, applications, and instrumentation. Topics include spectroscopy, chromatography, electrochemistry, optimization theory, and computerized instrumentation. Core course. Prerequisite: CHM 4130 or permission of instructor.

CHM 6430 Advanced Thermodynamics (3). The laws of classical thermodynamics and their application. Open and closed systems, irreversible processes, high and low temperature systems, solids, liquids, and gases. Core course. Prerequisite: CHM 3411 or permission of instructor.

CHM 6461 Statistical Thermodynamics (3). Principles of statistical thermodynamics. Ensembles, classical and quantum statistics, ideal and non-ideal gases, equilibrium, crystals, liquids, and polymers. Prerequisite: CHM 3411 or permission of instructor.

CHM 6480 Quantum Mechanics (3). Introduction to quantum mechanics. The Schrodinger equation and its solutions, approximation methods, spin, symmetry, structure of atoms and molecules. Prerequisite: CHM 3411 or permission of instructor.

CHM 6511 Polymer Chemistry (3). A quantitative study of polymers. Mechanism of formation, configuration of polymer chains, and the relationship between physical properties and chemical constitution. Prerequisite: CHM 3411 or permission of instructor.

CHM 6905 Independent Study in Chemistry (1-6). Independent study and problems in an area of chemistry, under faculty supervision. May be repeated. Prerequisite: Permission of instructor.

CHM 6910L Graduate Research in Chemistry (VAR). The student works directly with a professor on a research project. Credit is assigned on the basis of 4 hr/wk per credit hour. Results to be presented as a seminar. Permission of instructor.

CHM 6935 Graduate Seminar (3). An examination of various current research topics in chemistry. Prerequisite: Graduate standing.

CHM 6940 Supervised Teaching (1-3). Graduate student serves as lecturer and demonstrator in undergraduate laboratories coordinated and supervised by a faculty member. May be repeated. A maximum of three hours may apply to the Master's degree. Prerequisite: Full graduate standing.

CHM 6949 Industrial Internship (3). A semester of supervised work in an outside laboratory. Prerequisite: Permission of instructor.

CHM 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of Department.

CHM 6971 Master's Thesis (1-6). Completion of thesis. Prerequisite: Permission of major professor.

CHS 4100 Radiochemistry (2)
CHS 4100L Radiochemical Techniques Lab (2). Production, isolation, methods of detection, counting statistics and estimation of radioisotopes. Applications to chemical, physical and biological problems. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1045, 1046, 3120, 3120L; MAC 3411, 3412.

CHS 4591 Internship in Criminalistics-Chemistry (3). Internship in a forensic-type laboratory, contributing in a specific manner on an assigned problem. Twenty hrs/wk. Written report required. Open only to students in the Criminalistics Chemistry Program. Prerequisite: Senior standing.

ISC 4041 Scientific Literature (1). This course presents a perspective on the scientific literature and scientific documentation. Problems in using and searching the scientific literature will be specifically designed to meet the needs of various disciplines, e.g. chemistry, environmental science, physics, biology. Prerequisites: 16 semester hours of science.

OCC 3002 Chemical Oceanography (3)
OCC 3002L Chemical Oceanography Lab (1). Chemical composition and properties of seawater including major and minor elements. Chemical composition and properties of seawater including major and minor elements, dissolved gases, buffering systems. Lecture and lab should be taken concurrently. Prerequisites: one year of general chemistry with lab; quantitative analysis with lab.

Communication

J. Arthur Heise, *Professor and Chairperson*
Lillian Lodge Kopenhaver, *Associate Professor and Associate Chairperson*
Stanley D. Bogue, *Assistant Professor*
James E. Couch, *Associate Professor*
Humberto Delgado, *Assistant Professor*
Michael O. Fowler, *Assistant Professor*
Charles Green, *Executive Director, Central American Journalism Project*
Peter Habermann, *Associate Professor*
Kevin Hall, *Editor-in-Residence*
David L. Martinson, *Associate Professor*
Gonzalo Soruco, *Assistant Professor*
William F. Wright, *Associate Professor*

Degree: **Bachelor of Science**

The aim of the undergraduate communication program at the University is to prepare students who:

1. Are broadly educated, demonstrated by a grasp of the liberal arts and an appreciation of the value of knowledge and learning, including exploration in some depth of a specific field of knowledge outside of communication;
2. Can think clearly and objectively about the complexities of the modern world, formulate concepts and effectively communicate this information to targeted audiences;
3. Are proficient in the basic skills necessary to meet professional requirements at the entry level in one of the sequences offered by the department. This shall include the ability to write English to professional standards and to master the mechanics of writing grammar, spelling, and punctuation;
4. Understand the social, ethical, economic, philosophical, and political aspects of the communication profession in a global society.

The department offers sequences in advertising, telecommunication production, public relations, and journalism, which includes print and broadcast news. Approximately 25 percent of a student's course work is within the department. The purpose is to provide professional career entry skills as well as a broader understanding of communication processes and techniques and their impact on society.

Emphasis is placed on a broad range of knowledge. In keeping with the standards required of nationally-accredited mass communication programs, 90 of the approximately 120 semester hours needed to graduate must be taken outside the department; a minimum of 65 of those hours must be in the liberal arts. Additionally, students will select an area of concentration outside the field of communication to pursue in depth. Each sequence advisor will provide recommendations for students with particular career goals. Typing ability is required of all students.

Lower Division Requirements

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Transfer students from an accredited two-year college or another accredited institution are required to have completed 48 semester hours in the liberal arts area. Students are strongly encouraged to take more than 48 hours in the liberal arts at the lower division. All previous course work will be evaluated to ascertain that the applicant to the department has met the University's General Education requirements as well as those of the department and sequence. All deficiencies must be completed within the first two semesters. The student must have a minimum GPA of 2.0 in all previous coursework.

Admission Policy

All students are admitted to the department on a provisional basis. Continuation in the degree program is contingent upon successful completion of 12 semester hours of communication courses, with at least a 2.5 GPA. The 12 hours must include: MMC 3101, MMC 4602, the introductory course to the chosen sequence, and one other three-hour course in communication.

Language Proficiency

All students are required to pass MMC 3101 with a grade of 'C' or higher before being admitted to official major status in the department. A diagnostic English test will be administered prior to the first class of MMC 3101. Students who do not pass the test will not be allowed to continue in the course. Remedial English courses for those not passing the MMC 3101 diagnostic test will be recommended by the student's advisor. Students who do not pass the MMC 3101 class may not enroll in more than nine other semester hours in the department. A passing grade of 'C' of higher in MMC 3101 is required to enroll in JOU 3100, ADV 3101, and RTV 3100.

Lower Division Transfer Credit

Transfer students entering the program may receive credit, with departmental approval, for a maximum of six semester hours of communication courses taken at the lower division with a grade of 'B' or higher in each course.

Lower Division Students

Freshmen and sophomores planning to enter the Department of Communication are encouraged to write or visit the department to discuss requirements, career opportunities, and their programs of study.

Acceptable Performance

Only grades of 'C' or higher in departmental courses, the student's area of concentration, and other departmentally required courses shall apply for graduation. A 'C minus' is unacceptable.

Graduation Policy

To be eligible for graduation, a student must have a minimum 2.5 GPA in all courses in communication.

Core Course Requirements
In addition to sequence requirements, each student must enroll in the following courses. Transfer credit is not permitted for any of these courses:

MMC 3101	Writing for Mass Communication	3
MMC 4200	Mass Communication Law	3
MMC 4602	Mass Media and Society	3
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Advertising

Departmental requirements: Students in the Advertising sequence are required to take the following courses in addition to the nine semester hours core.

Departmental Courses

ADV 3000	Principles of Advertising	3
ADV 3500	Advertising Strategy Research	3
ADV 3200	Advertising Graphics and Production	4
ADV 4100	Advertising Copywriting	3
ADV 4300	Media Planning	3
ADV 4801	Advertising Campaigns	4
RTV 3201	Video Field Production I	3

Before taking ADV 3000, students are strongly advised to take:

MAR 3023	Marketing Management	3

Area of Concentration: In consultation with an advisor, students must elect a coherent series of five upper-division courses (15 semester hours) in a non-communication area related to their career emphasis. Students may satisfy the area of concentration by earning a Certificate in Marketing from the College of Business Administration.

Liberal Arts Requirements: Students must earn a minimum of 65 semester hours in liberal arts, 12 of which must be upper division courses.

Recommended lower division courses may be selected from visual arts, drama, foreign language, history, literature, music, philosophy, religion, speech, anthropology, economics, geography, international relations, political science, sociology, or psychology.

Recommended upper division courses may be selected from psychology, sociology, anthropology, political science, history, international relations, economics, English composition, creative writing, theater arts, computer science, statistics, visual arts, management, or marketing. Other subject areas in liberal arts may qualify with the approval of the advertising advisor.

Internship: Internships are available for advertising majors who have not yet gained experience in the field. Students who have a 3.0 GPA in departmental course work and who meet the curricular requirements outlined in the internship packet may elect an internship in consultation with their advisor. The internship requires a minimum of 300 hours of work.

Minor in Advertising
Students are required to take two courses from each group for a total of 18 semester hours.

Group I:		
ADV 3000	Principles of Advertising	3
ADV 3500	Advertising Strategy Research	3
Group II:		
ADV 3200	Advertising Graphics and Production	4
ADV 4100	Advertising Copywriting	3
ADV 4300	Media Planning	3
Group III:		
MMC 3101	Writing for Mass Media	3
MMC 4602	Mass Media and Society	3
MMC 4609	Public Opinion and Mass Media	3

Journalism

Students may choose the Print Journalism Track (for newspaper, magazine, or wire service careers), or the Broadcast Journalism Track (for television and radio careers). Students are required to take the following courses in addition to the nine semester hours core:

Print Journalism

JOU 3100	News Reporting	3
(a grade of 'B' or higher is required to continue as a journalism major.)		
JOU 3101	Advanced News Reporting	3
JOU 3312	Specialty Journalism[1]	1-1-1
JOU 3200	Editing and Makeup	3
JOU 3300	Feature Writing	3
JOU 4004	Perspectives in Mass Media	3
(must be taken in senior year.)		
JOU 4108	Public Affairs Reporting	3

Broadcast Journalism

JOU 3100	News Reporting	3
(a grade of 'B' or higher is required to continue as a journalism major.)		
JOU 4108	Public Affairs Reporting	3
RTV 3201	Video Field Production I	3
RTV 4302	Broadcast News Reporting	3
RTV 4466	Electronic News Gathering	3
JOU 3312	Specialty Journalism[1]	1-1-1
JOU 4004	Perspectives in Mass Media	3
(must be taken in the senior year.)		

Electives: Students must select one of the following courses:

PGY 3610	Photojournalism	3
JOU 4208	Magazine Editing and Production	3
MMC 4500	Media History	3
RTV 3000	Principles of Telecommunication	3
RTV 3201	Video Field Production I	3
ADV 3000	Principles of Advertising	3
PUR 3000	Principles of Public Relations	3
MMC 3250	Media Management	3
MMC 4609	Public Opinion and the Mass Media	3
MMC 4945	Internship (for qualified seniors only)	3

Area of Concentration: In consultation with an advisor, students must develop a coherent series of 15 upper division hours in a field outside the department. Students are encouraged to select a field that will broaden their knowledge. These fields include English literature, history, philosophy, science, the humanities, and political science. Students may select a specialized area of concentration such as economics, criminal justice, international relations, or business, but are encouraged to supplement studies in these fields with liberal arts courses. Students are encouraged to take a course in logic.

Liberal Arts Requirements: Students must earn a minimum of 65 semester hours in liberal arts.

In consultation with an advisor, students must select one upper division course from each of the following five areas: statistics, psychology, economics, political science, and sociology.

Students may take the remaining liberal arts courses in the lower or upper division. Courses in the following areas are recommended: English, philosophy, history, political science, and modern languages.

Internship: The internship is important for journalism majors who have not yet gained experience in the field. Therefore, students who have a 3.0 GPA in departmental course work and meet the curricular requirements outlined in the internship packet may select the internship in consultation with their advisor.

Minor in Journalism
The Minor programs require 16 semester hours each.
Print Journalism
Required Courses

JOU 3100	News Reporting	3
JOU 3101	Advanced News Reporting	3
or		
JOU 3300	Feature Writing	3
JOU 3200	Editing and Make-up	3
or		
JOU 4108	Public Affairs Reporting	3

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[1] Students must take JOU 3312, Specialty Journalism, three times after completing JOU 3100. These one-hour seminars cover such topics as investigative reporting, political writing, sportswriting, sportscasting, editorials and commentary, minority journalism, the wire services, business reporting, advanced makeup and design, public records, reviews. Not all topics will be offered each semester and other topics may be added.

JOU 3312	Specialty Journalism	1
JOU 4004	Perspectives in Mass Media	3
MMC 3101	Writing for Mass Communication	3

Broadcast Journalism
Required Courses

JOU 3100	News Reporting	3
JOU 3312	Specialty Journalism	1
JOU 4004	Perspectives in Mass Media	3
JOU 4466	Electronic News Gathering	3
MMC 3101	Writing for Mass Communication	3
RTV 4302	Broadcast News Reporting	3

Public Relations

Students in the Public Relations sequence are required to take the following courses in addition to the nine semester hours core:

PUR 3000	Principles of Public Relations	3
PUR 4100	Writing for Public Relations	3
PUR 4101	Publications Editing and Design	3
PUR 4106	Public Relations Project Writing	3
PUR 4800	Public Relations Campaigns	3
PUR 4934	Public Relations Seminar	3
MMC 4420	Mass Communication Research Techniques	3
MMC 4609	Public Opinion and the Mass Media	3

Electives: Students must select of the following departmental electives:

ADV 3000	Principles of Advertising	3
JOU 4208	Magazine Editing and Production	3
MMC 4945	Internship	3

Area of Concentration: In consultation with an advisor, the student must take 15 upper division semester hours in one area of emphasis outside of the department. These courses should relate to the student's career expectations. Several traditional areas of specialization are as follows:

Governmental public communication (public administration, international relations, criminal justice, or political science)

Corporate public relations (marketing or management)

Non-profit public relations (social sciences or marketing)

Public relations for travel and tourism (hospitality management)

These groupings do not preclude other specialized areas of interest, including modern languages and the certificate programs available in the College of Arts and Sciences.

Liberal Arts Requirements: Students must earn a minimum of 65 semester hours in liberal arts, 12 of which must be upper division courses.

Students must select one course from each of the following subject areas: American or English literature, economics, political science or psychology.

Students may take the remaining liberal arts courses in the lower or upper division. Courses in the following subject areas are strongly recommended: English, psychology, sociology, international relations, and modern languages.

Internship: The internship is important for public relations majors who have not yet gained experience in the field. Therefore, students who have a 3.0 GPA in departmental course work and meet the curricular requirements outlined in the internship packet may select an internship in consultation with their advisor. This three-semester hour course is one of the departmental electives. The internship program requires a minimum of 300 hours of work.

Minor in Public Relations
The Minor program requires 18 semester hours.
Required Courses

MMC 3101	Writing for Mass Communication	3
PUR 3000	Principles of Public Relations	3
PUR 4100	Writing for Public Relations	3
PUR 4106	Public Relations Project Writing	3
JOU 4208	Magazine Editing and Production	3
or		
PUR 4101	Publications Editing and Design	3
PUR 4800	Public Relations Campaigns	3

Telecommunication

Departmental Requirements
Students in the Telecommunication sequence may choose the Production Track or the Management Track.

Students are required to take the following courses in addition to the nine semester hours of core courses:
Production

RTV 3000	Principles of Telecommunication	3
RTV 3100	Writing for Electronic Media	3
RTV 3201	Video Field Production I	3

(Co or prerequisite: RTV 3000)

RTV 3200	Studio Production I	3

(Co or prerequisite: RTV 3000)

RTV 3221	Video Production II	3

(Prerequisite: RTV 3201)

RTV 3220	Studio Production II	3

(Prerequisite: RTV 3200)

RTV 3500	Programming Theory	3

(Prerequisite: RTV 3000)

RTV 4206	Advanced Video Production Workshop	3

(Prerequisites: RTV 3220 and RTV 3221)

MMC 4262	New Technologies	3
MMC 4945	Communication Internship	3

(For Eligible Students - Co or prerequisite: RTV 4206. Students not eligible for MMC 4945 need to take MMC 4420.)

or		
MMC 4420	Mass Communication Research Techniques	3

Management

RTV 3000	Principles of Telecommunication	3
RTV 3100	Writing for Electronic Media	3
RTV 3500	Telecommunication Programming Theory	3

(Prerequisite: RTV 3000)

MMC 3250	Media Management	3

(Co or prerequisite: RTV 3000)

MMC 4262	New Technologies	3
MMC 4302	Comparative Systems	3

(Prerequisite: RTV 3000)

MMC 4420	Mass Communication Research Techniques	3
RTV 3201	Video Field Production I	3

(Co or prerequisite: RTV 3000)

or		
RTV 3200	Video Studio Production I	3

(Co or prerequisite: RTV 3000)

MMC 4613	Effects of Mass Media	3
or		
MMC 4609	Public Opinion	3

Area of Concentration: Students must take 15 upper division semester hours in a field outside of the department. This field of study will be decided upon with the advisor with appropriate consideration given to the student's specialized needs.

Liberal Arts Requirements: Students must earn a minimum from 65 semester hours in liberal arts, of which 12 must be upper division semester hours.

a. Upper Division Courses

Students must select a total of 12 semester hours of the following subject areas: art (photography), art history, computer science, English, history, political science, philosophy, sociology or anthropology.

b. Lower Division Courses

Students may take the remaining liberal arts courses in the lower division, although only six semester hours of lower division at FIU are allowed for students who transfer 60 lower division hours from other institutions.

Internship: The internship is important for telecommunication majors who have not yet gained experience in the field. Therefore, students who have a 3.0 GPA in departmental course work and meet the curricular requirements outlined in the internship packet may select the internship in consultation with their advisor. The internship requires a minimum of 300 hours of work.

Minor In Telecommunication

Required Courses: (15 semester hours)

MMC 4602	Mass Media and Society	3
RTV 3000	Principles of Telecommunication	3
RTV 3100	Writing for the Mass Media	3
RTV 3201	Video Field Production I	3
(Co or prerequisite: RTV 3000)		
or		
RTV 3200	Studio Production	3
(Co or prerequisite: RTV 3000)		
RTV 3500	Telecommunication Programming Theory	3
(Prerequisite: RTV 3000)		
or		
MMC 3250	Media Management	3
(Co or prerequisite: RTV 3000)		

Minor In Mass Communication

Required Courses: (15 semester hours)

MMC 4602	Mass Media and Society	3
MMC 4200	Mass Media Law	3
MMC 4609	Public Opinion and the Mass Media	3
PUR 3000	Principles of Public Relations	3
or		
ADV 3000	Principles of Advertising	3
or		
RTV 3000	Principles of Telecommunication	3

Elective Course: One three credit elective course at the 3000 level or higher. (May include one of the two remaining courses above.)

Master of Science In Mass Communication

The graduate program of the Department of Communication offers professional education leading to the M.S. in Mass Communication with specializations in print and broadcast journalism, telecommunication management and student media advising. These specializations are scheduled to begin in Fall 1988, with specializations in advertising, public relations and telecommunication production to be added in the future. The orientation of the graduate program is primarily professional, not theoretical; the program is designed to enhance graduates' abilities to work in the mass communication professions.

Admission Requirements

To be eligible for admission to the graduate program, applicants must meet the following requirements:

1. All applicants must have a bachelor's degree from a regionally accredited college or university.

2. All candidates must show promise of success in graduate studies. The faculty will consider the following criteria in making this determination:

a. A combination of the Graduate Record Examination (GRE) score and the grade point average (GPA) earned during the junior and senior undergraduate years. Applicants with a GRE score of 1000 must have a GPA of at least 3.0 (on a four-point scale). If the GRE score is lower than 1000, the GPA must be proportionately higher. If the GPA is below 3.0, the GRE score must be proportionately higher.

b. Significant professional experience in a field directly related to the specialization the student plans to pursue. Normally, this means at least three years of increasingly responsible and successful work in the field. Applicants without such professional experience must complete additional undergraduate coursework. Some may be required to serve an internship with a professional organization. Applicants should contact the coordinator of graduate studies to find out what they must do to meet this requirement.

c. Three letters of recommendation sent the references to the coordinator of graduate studies. These letters should be from persons competent to judge the applicant's academic or professional record and potential for success as a professional in mass communication.

d. A detailed statement explaining why the applicant wants to pursue the M.S. in Mass Communication.

e. Competence in the fundamentals of statistics. Undergraduate coursework in statistics may demonstrate this competence. Applicants who have not studied statistics may be admitted provisionally, to take up to nine semester hours of graduate study while completing coursework in statistics specified by the coordinator of graduate studies.

3. All candidates whose native language is not English must present a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). Application Procedures

A student applying for admission to the graduate program must:

1. Submit an application for admission to the University Admissions Office.

2. Have two official copies of transcripts from all colleges or universities attended sent to the Admissions Office. (Copies submitted by applicants will be rejected.)

3. Submit scores of the GRE and TOEFL to the Admissions Office. Degree requirements

Plan of Study: During the first semester, students, working with faculty advisors, will plan their pursuit of the master's degree. The study plan will include a timetable for completion of the work. Any changes in the plan must be approved by the student's advisor and the coordinator of graduate studies.

Writing and Typing Proficiency

During the first week of the first semester, students must take a writing proficiency exam, which includes grammar. Students who fail the test must complete the department's undergraduate writing course, MMC 3101, with a grade of 'B' or better. (No graduate credit is given for this course.) Students may take no more than nine graduate credits - and no professional courses - until they pass the writing proficiency exam or MMC 3101. Students must also demonstrate proficiency in typing.

Transfer Credit

Students may petition to transfer up to six hours of graduate credit toward the degree. To be approved for transfer, the courses must have been taken at a regionally accredited college or university; the student's advisor or the coordinator of graduate studies must judge the courses relevant to the student's plan of study; the student must not have used the credits toward another degree; and the student must have earned a 'B' or higher in the courses. No transfer courses will substitute for the department's core requirements.

Time Limit

All work applicable to the degree, including transfer credit, must be completed within six years.

Grades

Students must maintain a minimum GPA of 3.0 in all courses required for the degree. No more than two 'C' grades will be allowed.

Foreign Language Requirements

No foreign language will be required unless the student's plan of study includes proficiency in another language.

Professional Project

All students must complete a professional project in their areas of specialization. Work on the project will center around the Professional Project Seminar, a three to six credit hour course to be taken during the final semester. Projects will be graded by an evaluation committee consisting of the student's advisor, one other faculty member and a professional from outside the academic community. Students must receive a 'B' or higher on the project.

Required Courses

To earn the M.S. in Mass Communication, students must meet the following requirements:

1. Students must take at least 36 hours of acceptable graduate credit. (Students receiving three credit hours for the Professional Project will be required to take one or two 3-credit electives, depending on the specialization.)

2. At least 24 hours must be in departmental courses.

3. At least nine hours must be in minor outside the Department of Communication.

Core Curriculum

All students, in all areas of specialization, must take 12 to 15 semester hours of core courses. They are:

MMC 6402	Theories of Mass Communication	3
MMC 6445	Applied Research Methods in Media	3
MMC 6615	Contemporary Issues in Mass Communication	3
MMC 6970	Professional Project	3-6

Journalism

Students pursuing the master's degree in journalism may choose the print track (for newspaper and wire service careers) or the broadcast track (for television or radio). Most of the courses in the two tracks share seminars; the practicums are separate.

In addition to the core courses, students must take the following courses:

JOU 6190 Advanced Writing Techniques Seminar (1). (print majors only) to be taken with JOU 6940 Advanced Writing Techniques Practicum (2)

JOU 6195 Seminar on Advanced Broadcast News (broadcast majors only) (1) to be taken with JOU 6945 Practicum in Advanced Broadcast News (2).

JOU 6191 Advanced Reporting Techniques Seminar (1) to be taken with JOU 6941 Advanced Reporting Techniques Practicum (2)

JOU 6192 Seminar on Reporting Public Affairs I (1) to be taken with JOU 6942 Practicum on Reporting Public Affairs (2)

JOU 6193 Seminar on Reporting Public Affairs II (1) to be taken with JOU 6943 — Practicum on Reporting Public Affairs II (2)

JOU 6194 Seminar on Special Topics (1) to be taken with JOU 6944 Practicum in Special Topics (2)

Telecommunication Management

In addition to the core courses, students in telecommunication management must take the following courses:

RTV 5815	Telecommunication Management Structures	3
RTV 6937	Seminar on Telecommunication Planning and Policy	3
RTV 5936	Seminar in New Communication Technologies	3
RTV 5935	Seminar on International Comparative Systems	3

Student Media Advising

In addition to the core courses, students in student media advising must take the following courses:

JOU 5806	Student Publications Supervision	3
MMC 5207	Ethical and Legal Foundations of the Student Press	3
VIC 5205	Trends in Graphic Design	3

Students specializing in student media advising must take one or two additional 3-credit graduate courses in the department in an appropriate area of emphasis. Courses must be approved by the student's advisor.

Course Descriptions

Definition of Prefixes

ADV—Advertising; FIL—Film; JOU—Journalism; MMC— Mass Media Communication; PGY—Photography; PUR—Public Relations; RTV—Radio—Television.

ADV 3000 Principles of Advertising (3). Comprehensive survey of basic principles and practices of advertising emphasizing creative/media strategy decision processes and historical, social, economic, and social influences.

ADV 3101 Print Advertising (3). Advanced theory and practice in producing print advertising for the various media. Prerequisites: ADV 4100, ADV 3200, and ADV 3500.

ADV 3200 Advertising Graphics and Production (4). Introduction to graphic design and print production. Emphasis on processes and terminology for advertising management. Lab exercises focusing on layout, art selection, type design/specification, printing and TV storyboards. Prerequisites: ADV 3000 and RTV 3201.

ADV 3500 Advertising Strategy Research (3). Nature and application of research utilized in advertising. Emphasis on gathering and analyzing primary and secondary data to determine situation analyses and advertising strategies. Prerequisite: ADV 3000.

ADV 4100 Advertising Copywriting (3). Introduction to copywriting for print and broadcast advertising. Emphasis on message construction relative to strategy, style, form, and format. Prerequisite: ADV 3500 and ADV 3200.

ADV 4103 Radio/TV Advertising (3). Advanced theory and practice of producing radio and TV advertising. Includes production of a radio and TV commercial. Prerequisite: ADV 3500 and ADV 4100.

ADV 4300 Media Planning (3). Planning, execution, and control of advertising media programs. Emphasis on characteristics of the media, buying and selling processes, and methods and techniques used in campaign planning.

ADV 4801 Advertising Campaigns (4). Advanced course emphasizing all aspects in developing national and local campaigns. Extensive outside projects including research, creative/media strategy and tactics determination, budgeting, sales promotion, evaluation and presentation. Prerequisites: ADV 3500, ADV 3200, ADV 4100, and ADV 4300.

ADV 6355 Advertising and Society (3). The relationship between advertising, economic, political, moral, and ethical issues. Prerequisites: ADV 6505, ADV 6705, and ADV 6805.

ADV 6805C Advanced Creative Strategy and Tactics (3). Writing and visualization relevant to developing creative strategies for different media, clients and campaigns.

FIL 3000 Principles of Film (3). Introduces the film industry, with background structure and functions of the feature film.

FIL 4202 Film Production (3). A course in 16mm film production. Students will participate in an organized film production including budgeting, scripting, field production, and editing.

FIL 4300 History of Non-Fiction Film (3). Study of the documentary and propaganda film as a communication art form.

FIL 4408 Contemporary Commercial Film (3). Studies the release cycle of current feature films with attention to the American product.

FIL 4600 Economic Aspects of Film (3). Survey of economic, legal, and logistic considerations in producing and releasing feature films.

FIL 4941 Film Production Workshop (3). Advanced course in 16mm film production. Each student initiates and completes a film project. Prerequisites: FIL 4202 and FIL 3000.

JOU 3100 News Reporting (3). To teach the skills necessary to recognize and produce a good news story. Experience with news values/judgments, AP style, news lead construction, news writing formats, and news-gathering, including working with sources. Prerequisite: MMC 3101.

JOU 3101 Advanced News Reporting (3). Controlled field reporting providing experience in source development, interviewing, writing under deadline pressure, and regular critique of student works. Prerequisite: JOU 3100.

JOU 3200 Editing and Makeup(3). Editing news copy for accuracy, brevity, and clarity, including practice with AP style, copy and proofreading marks. Learning the role and function of the news editor. Design and layout of newspaper pages, including working with art, photographs and headlines, and editing and fitting news copy. Prerequisite: JOU 3100.

JOU 3300 Feature Writing (3). Writing the feature story: human interest, trends, personality profiles, sidebars, backgrounders, color. Prerequisites: JOU 3100.

JOU 3312 Specialty Journalism (1). Seminars in such topics as investigative, political, business, sports, or minority reporting, and editorials and commentary. Must be taken three times. Prerequisite: JOU 3100.

JOU 4004 Perspectives in Mass Media (3). Examination of contemporary issues in journalism, including legal, moral, and ethical questions and the impact of news on society. Prerequisite: Must be taken in the senior year.

JOU 4108 Public Affairs Reporting (3). Actual reporting of area governments and civic affairs. Enhancement of interviewing techniques, investigative skills; includes seminars with politicians, government officials, civic leaders, specialty reporters. Prerequisites: JOU 3101 (for print majors); RTV 4302 (for broadcast majors).

JOU 4208 Magazine Editing and Production (3). Develops skill in writing, editing and design, and a knowledge of planning, typography and graphics. Attention is given to developing formats, selecting copy, photos, graphics, and type.

JOU 5806 Student Publications Supervision (3). Designed to assist teachers and advisers of journalism at the high school and junior college level, this course emphasizes the technical aspects of producing student newspapers, yearbooks, and magazines, as well as the legal and ethical considerations facing today's adviser. In addition, attention is given to matters pertaining to curriculum and methodology for effective journalistic instruction.

JOU 6196 Advanced Writing Techniques Seminar (1). Seminar in techniques of creative journalistic writing, including description, narration, anecdote, point of view. Prerequisite: Graduate standing. Corequisite: JOU 6940.

JOU 6197 Advanced Reporting Techniques Seminar (1). Intensive instruction in how to find accurate and printable facts, with emphasis on use of public records. Prerequisite: Graduate standing. Corequisite: JOU 6941.

JOU 6198 Seminar on Reporting Public Affairs I (1). A journalist's examination of how to report urban government and the forces shaping public policy and decision-making. Prerequisite: Graduate standing. Corequisite: JOU 6942.

JOU 6199 Seminar on Reporting Public Affairs II (1). A journalist's examination of the judicial system, from police headquarters to the courtroom. Prerequisite: Graduate standing. Corequisite: JOU 6943.

JOU 6931 Seminar on Special Topics (1). Instruction in specialized areas of journalism. Prerequisite: Graduate standing. Corequisite: JOU 6944.

JOU 6940L Advanced Writing Techniques Practicum (2). Intensive practice in writing, using sophisticated techniques learned from the companion seminar, directed by experienced editors. Prerequisite: Graduate standing. Corequisite: JOU 6196.

JOU 6941L Advanced Reporting Techniques Practicum (2). Intensive practice in finding information, particularly in public records; practice in interviewing techniques. Prerequisite: Graduate standing. Corequisite: JOU 6197.

JOU 6942L Practicum in Reporting Public Affairs I (2). Practical experience in covering urban government, under the supervision of experienced editors. Prerequisite: Graduate standing. Corequisite: JOU 6198.

JOU 6943L Practicum in Reporting Public Affairs II (2). Practical experience in covering the justice system, from police headquarters to the courtroom, under supervision of experienced editors. Corequisite: JOU 6199.

JOU 6944L Practicum in Special Topics (2). Intensive practice in writing and reporting on specialized areas of journalism under the supervision of an experienced editor. Graduate standing. Corequisite: JOU 6931

JOU 6945L Graduate Standing Advanced Broadcast News Practicum (2). Practical experience in using advanced techniques and technologies of electronic news gathering and production. (With companion seminar.).

MMC 3101 Writing for Mass Communication (3). Instruction and practice in the techniques used by reporters, ad copywriters and public relations writers to produce clear prose that informs, persuades and entertains, with exercises aimed at improving writing abilities.

MMC 3250 Media Management (3). Reviews the organization of radio, TV, magazine, and newspaper enterprises.

MMC 4200 Mass Communication Law (3). Study of laws that regulate U.S. mass media, interpretations of these laws through recent court decisions, and discussion of the way communicators work within the statutes of their nation and state.

MMC 4253 Advanced Media Management (3). A senior level course dealing with case studies of media organizations. Prerequisite: MMC 3250.

MMC 4262 New Technologies of Communication (3). The principal emphasis is upon new technologies and their utilization by non-profit organizations. Of particular interest are cable television, teletext, satellites, videodisc, and telecommunication trade.

MMC 4302 Comparative Systems of Mass Communication (3). An examination of various national and international mass communication systems and the elements which determine the type of systems currently operating throughout the world. Pre or corequisite: RTV 3000.

MMC 4420 Research in the Mass Media (3). Organize, authenticate, evaluate, analyze and interpret quantitative information for use in mass activities. Instruction requires the use of a computer. Prerequisites: Senior standing.

MMC 4500 Media History (3). Development of American media from beginnings in Europe to present day; freedom of the press and its relationships to economic, political, and social trends in society.

MMC 4602 Role of Mass Media in Society (3). Investigation of the role played in the U.S. by the mass communication media as a cultural, social, informational, economic, political, and educational force. The interrelationship of all media and their potential impact on the collective population will be studied.

MMC 4609 Public Opinion and the Mass Media (3). Study of the communication process, persuasion, and attitude change. Explores the methods of measuring, analyzing, changing, and/or maintaining the public opinion for socially acceptable causes.

MMC 4613 Effects of the Mass Media (3). Reviews the effects of the media, with special attention to children, minorities, terrorism, and Third World countries.

MMC 4905 Independent Study (1-3). Specialized intensive study in an area of special interest to the student. Consent of instructor is required. (Limit of three credits).

MMC 4936 Special Topics (VAR). Intensive study for groups of students of a particular topic or limited number of topics, not otherwise offered in the curriculum. Consent of instructor or department chairperson is required.

MMC 4940 Media Practicum (3). Structured field-work experience in media environment.

MMC 4945 Communication Internship (3). On-the-job learning in activity at selected and approved organizations. Will include newspapers, magazines, radio and TV stations, agencies, and non-profit organizations. Prerequisite: Consent of advisor.

MMC 5207 Ethical and Legal Foundations of the Student Press (3). Examines ethical and legal foundations underlying the operation of the student press on American campuses, stressing both rights and responsibilities and how to organize publications to protect both.

MMC 5445 Applied Research Methods in the Mass Media (3). An advanced course in the design, execution, and utilization of research studies by media practitioners with special emphasis on original proprietary studies.

MMC 5661 Minorities and the Mass Media (3). A critical review of the role of the mass media as it relates to ethnic, religious, and social minorities in a pluralistic society.

MMC 5932 Special Topics Seminar (3). A variable topic seminar dealing with issues of interest to the community. Examples are rights of high school journalists, cable TV, the use of mini-computers in creative communication.

MMC 6402 Theories of Mass Communication (3). Examines theories and processes of mass communication. Special emphasis on explaining, measuring and reporting the impact of mass communication. Prerequisite: Graduate standing.

MMC 6635 Contemporary Issues in Mass Communication (3). Contemporary issues regarding media responsibility to society and the social responsibility of communicators. Analysis and evaluation of media ethics and performance. Prerequisite: Graduate standing.

MMC 6950 Mass Communication Professional Project (1-6). The professional project is designed to demonstrate the student's excellence in an area of communication study. Must be completed within one calendar year. Prerequisites: Completion of Core, Sequence Courses and Electives.

PGY 3610 Photojournalism (3). Study of principles and practices of photographic assignments related to coverage of news and feature events, and methods of selecting final photographs from contact prints.

PUR 3000 Principles of Public Relations (3). An introduction to the theory, history, practice, and future of public relations. A comprehensive study of the field.

PUR 4100 Writing for Public Relations (3). Practice in the preparation and production of press releases, public service announcements, media memos and teases, backgrounders and proposals, letters, and brochure and newsletter copy. Prerequisites: PUR 3000 and MMC 3101.

PUR 4101 Publications Editing and Design (3). Design, editing, and production of materials in the area of trade, corporate, organizational, and technical press, with special attention given to typography, style and production of tabloid and magazine format publications.

PUR 4106 Public Relations Project Writing (3). Development of skills related to the writing of materials for special events, feature topics, multimedia presentations and ghostwriting of speeches. Prerequisite: PUR 4100

PUR 4800 Public Relations Campaigns (3). An advanced course in application of theory to actual implementation of public relations activities, including preparing press kits, press releases, special events, brochures, and multimedia presentations. Prerequisite: PUR 3000 or consent of instructor.

PUR 4934 Public Relations Seminar (3). Open to public relations-emphasis students only. A course designed to allow the advanced public relations student to pursue a specially selected, specific area of public relations (i.e., political, medical, financial, government, corporate, educational, etc.) through in-depth study under a tutorial style of instruction and guidance. Prerequisites: PUR 3000 and PUR 4800, or consent of instructor.

PUR 5406 International Public Relations (3). The growing role of public relations in the marketing process of international trade, with emphasis on emerging practices within foreign nations and their impact upon the United States. Prerequisite: PUR 3000, PUR 4800 or permission of instructor.

PUR 5806 Public Relations Strategy, Planning and Evaluation (3). Advanced study in evaluating public relations effectiveness, measurement and interpretation of public attitudes, and development of campaign strategies. Prerequisite: PUR 3000 and PUR 4800 or permission of instructor.

PUR 6935 Advanced Public Relations Seminar (3). A series of case studies immerses students in the applications of public relations theory/principles to practice. A variety of different public relations fields will be studied. Prerequisites: PUR 5607 and PUR 5806.

RTV 3000 Principles of Telecommunication (3). Review of telecommunication industries, organization, and practice.

RTV 3100 Writing for the Electronic Media (3). Emphasis placed on writing for broadcast and full program script preparation. Prerequisite: MMC 3101.

RTV 3200 Video Studio Production I (3). Introductory course in video production. Major emphasis is on studio production techniques in various settings.

RTV 3201 Video Field Production I (3). Introductory course in video production. Major emphasis on field (EFP/ENG) production and post-production techniques in various settings. Pre or corequisite: RTV 3000.

RTV 3220 Video Studio Production II (3). Intermediate course in studio production. Major emphasis on directing and aesthetics in program creation, studio and post-production. Prerequisite: RTV 3200.

RTV 3221 Video Field Production II (3). Intermediate course in video production. Major emphasis is on practical application of ENG/EFP video techniques to various settings. Prerequisite: RTV 3201

RTV 3500 Telecommunication Programming Theory (3). Introductory course in programming, ratings, and audience analysis. Prerequisite: RTV 3000.

RTV 4206 Advanced Video Production Technique Workshop (3). Advanced course in field video production technique. Emphasis is to develop greater location video skills in narrative construction, including more complex narrative structures, more complex video and audio editing, field camera and sound-recording techniques. Hands-on course. Prerequisites: RTV 3210 and RTV 3211 or RTV 3220 or RTV 3221.

RTV 4302 Broadcast News Reporting (3). Reporting, writing, and presenting radio and television news programs; analysis of news and public affairs broadcasting; social responsibility for broadcasters. Prerequisite: JOU 3100.

RTV 4466 Electronic News Gathering (3). Use of ENG in broadcast journalism. Prerequisites: RTV 3201 and RTV 4302.

RTV 4505 Advanced Programming (3). Use of ratings and audience analysis in radio and TV industries.

RTV 5806 Telecommunication Management Structures (3). Intensive study of telecommunication management problems, theory of same, solutions of same through practical application and examination of case studies. Prerequisite: Graduate standing.

RTV 5935 Seminar in International Comparative Broadcasting Systems (3). Introduction to international telecommunication systems with special emphasis on broadcasting. Comparison with other countries. Prerequisite: Graduate standing or permission of instructor.

RTV 5936 Seminar in New Mass Communication Technologies (3). Discussion of new communication technologies and their influence on the society. Prerequisite: Graduate standing.

RTV 6309 Seminar on Advanced Broadcast News (1). Seminar in advanced techniques, principles and issues of reporting for the electronic media, from spot news to documentaries. Prerequisite: Graduate standing. Corequisite: JOU 6945.

RTV 6465C Field Production Practicum (3). The student will be responsible for the organization and complete pre-production, production, and post-production of his/her project(s). Prerequisite: Graduate standing.

RTV 6468C Studio Production Practicum (3). The student will be responsible for the organization and complete pre-production, production and post-production of his/her project(s). Will also be required to do directing and I.D. work. Prerequisite: Graduate standing.

RTV 6937 Seminar in Telecommunication Policies and Planning (3). Introduction to national and international telecommunication policies, with emphasis on planning and decision making. Prerequisite: Graduate standing.

VIC 5205 Trends in Graphics and Design (3). Design principles and how they relate to trends in student and professional media, including newspapers, magazines and yearbooks. Deals with graphics, packaging, typography and modern design.

School of Computer Science

Robert C. Fisher, *Professor and Director*
Toby S. Berk, *Professor and Associate Director*
David S. Barton, *Professor*
John C. Comfort, *Professor*
Raimund Ege, *Assistant Professor*
Istvan Erenyi, *Visiting Assistant Professor*
Carol D. Henley, *Instructor*
William T. Kraynek, *Associate Professor*
Wesley F. Mackey, *Lecturer*
Masoud Milani, *Assistant Professor*
Jainendra K. Navlakha, *Professor*
Ana Pasztor, *Associate Professor*
Alexandru Pelin, *Associate Professor*
Norman Pestaina, *Instructor*
N. Prabhakaran, *Assistant Professor*
Naphtali Rishe, *Associate Professor*
Orlando Sauleda, *Instructor*
Gregory Shaw, *Visiting Instructor*
Doron Tal, *Assistant Professor*
Mark Weiss, *Assistant Professor*

The School of Computer Science offers both undergraduate and graduate degree programs. Graduates of the Bachelor of Science program are prepared for entry-level positions involving computer related tasks such as programming and small system design, and for entry into graduate programs involving computers. The Master of Science degree provides study in state-of-the-art computer applications as well as an introduction to the theoretical foundations of computer science. The Doctor of Philosophy in Computer Science is designed to provide study in all major areas of computer science while leading to the frontiers of knowledge in a chosen field of concentration. The major programs, and a minor program, are described below.

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

As part of the 60 semester hours of lower division coursework necessary to enter this upper division major, note the following recommendations or course requirement, or both.

Required Courses: Computer Programming in COBOL at an acceptable level. Computer Programming in PASCAL at an acceptable level. Calculus through infinite series.

The equivalent courses at the University are:

COP 3120	COBOL and Data Processing
COP 3210	Programming in PASCAL
MAC 3311-2	Calculus I and II

Upper Division Program

Required Courses

ENC 3210	Technical Writing	3
COP 3212	Intermediate Programming	3
COP 3400	Assembly Language Programming	3
MAD 3104	Discrete Mathematics	3
MAD 3512	Introduction to Theory of Algorithms	3
CDA 4101	Structured Computer Organization	3
COP 3530	Data Structures	3
CIS 4610	Introduction to Software Engineering	3
COP 4610	Operating Systems Principles	3
STA 3033	Introduction to Probability and Statistics for CS	3
or		
STA 3321-2	Mathematical Statistics I and II	3-3

Plus one course from each of the following two lists.

List 1

MAD 3305	Graph Theory	3
MAD 3401	Numerical Analysis	3
MHF 4302	Mathematical Logic	3
COT 5420	Theory of Computation I	3
MAD 4203	Introduction to Combinatorics	3

List 2

CDA 4400	Computer Hardware Analysis	3
CDA 4500	Data Communications	3
CDA 3700	Introduction to Computer Graphics	3
COP 4555	Survey of Programming Languages	3
COP 4540	Data Base Management	3
COP 5621	Compiler Construction	3

Electives: The balance of the 60 semester hours required for graduation may be chosen from any courses in the University approved by the student's advisor. A Computer Science major may not take a computer related course in another department for elective credit, unless specifically approved in advance in writing by the student's advisor.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Computer Science major: CGS 2060, CGS 3061, CIS 3000, COP 2172, MAC 3233, STA 3013, STA 3122-23, STA 3132, and QMB 3150 (College of Business Administration).

Minor in Computer Science

Required Courses

COP 3210	Programming in PASCAL	3
COP 3400	Assembly Language Programming	3
COP 3212	Intermediate Programming	3
COP 3120	Data Processing and COBOL	3
or		
CGS 3403	COBOL for Non-Computer Science Majors	

Plus one course selected from the following list: CDA 4101, CDA 4400, CDA 4500, CIS 4610, CAP 3700, COP 4555, MAD 3401. The student must verify that he or she has the prerequisite for the course selected. A grade of 'C' or higher in each of these courses is necessary for the minor.

Remarks: No mathematical sciences courses (Computer Science, Mathematics, or Statistics) can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a mathematical science course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Master of Science in Computer Science

Admission: The following are in addition to the University's graduate admission requirements.

1. A Bachelor's Degree in Computer Science or equivalent degree in a related field from an accredited university or college as judged by the School's Graduate Committee.
2. A 'B' average or better in all coursework attempted while registered as an upper-division student in the Bachelor's degree.
3. Acceptable courses in Calculus and Statistics;
4. GRE score of at least 650 quantitative and 500 verbal taken within the last five years;
5. Three letters of recommendation from persons in a position to judge the applicant's potential success in graduate study;
6. Approval of the Graduate Committee.

Graduate Program of Studies

CIS 5611	Software Engineering	3
COP 6611	Advanced Operating Systems	3
COT 5420	Theory of Computation I	3
COT 6400	Analysis of Algorithms	3

In addition, the student must choose four courses from the following list, subject to the approval of the Graduate Committee:

CAP 5701	Computer Graphics	3
CDA 6501	Distributed Processing	3
CIS 6327	Statistical Computer Performance Evaluation	3
COP 5540	Data Base and File Organization	3
COP 5621	Compiler Construction	3
COP 6321	Theory of Computation II	3
COP 6020	Survey of Programming Languages	3
COP 6545	Advanced Topics in Database Management	3
COT 6210	Theory of Formal Languages	3
CAP 5680	Expert Systems	3
CDA 5312	Micro Processing for Software Designers	3
COT 6556	Semantics of Programming Languages	3
MAD 5405	Numerical Methods	3
MAP 6127	Simulation and Modeling	3

In addition, the student must satisfy one of the following two options:

Thesis Option
CIS 6970 Thesis 6

After completion of the other required courses, the student must conduct a research thesis. The topic must first be approved by the faculty member who will supervise the research and then by the Graduate Committee. The thesis will be accepted only after being read and approved by a Reading Committee. An oral defense is required before the Reading Committee.

Non-Thesis Option:
Additional Coursework 6

The student is required to take at additional six semester hours of approved electives. The student then must pass a comprehensive examination which may have both written and oral parts and which is based on the student's coursework. This examination may not be taken more than two times, except by permission of the Graduate Committee.

Remarks: The program requires a 'B' average or higher and a grade of 'C' or higher in each course. A maximum of two courses may be transferred into the program from outside the University, subject to the approval of the Graduate Committee.

Doctor of Philosophy in Computer Science

The requirements for admission to the doctoral program in Computer Science are:

1. A baccalaureate or master degree in Computer Sciences, or equivalent degree in a related field as judged by the School's Graduate Committee.

2. GRE scores of at least 650 on the quantitative portion and 500 on the verbal portion. The GRE must have been taken within the past five years.

3. Three letters of recommendation from persons in a position to judge the applicant's potential for advanced graduate study in computer science.

4. Approval of the School of Computer Science Graduate Committee. Required Courses: All students must complete the following courses and receive a grade of 'B' or higher in each.

CDA 5312	Microprocessing for Software Designers	3
CDA 6501	Distributed Processing	3
COP 5540	Data Base and File Organization	3
CIS 5611	Software Engineering	3
COP 6611	Advanced Operating Systems	3
COT 5420	Theory of Computation I	3
COT 6400	Analysis of Algorithms	3
COT 6210	Theory of Formal Languages	3
MAD 5405	Numerical Methods	3
STA 6807	Queuing and Statistical Models	3

In addition, all students

1. Must successfully pass a Qualifying Examination based on the required coursework

2. Must take at least 12 hours of 6000-level courses approved by the Graduate Committee;

3. Must successfully pass the Ph.D. Candidacy Examination in the field of study which is their major area of research;

4. Must write a dissertation on their research and successfully defend it orally

5. Must spend at least one academic year in full-time residence. Normally, this will be after passing the qualifying examination.

For additional information and for specific rules and regulations relating to the above, please write to:

Chairperson, Graduate Committee
School of Computer Science
Florida International University
University Park
Miami, Florida 33199

Course Description

Definition of Prefixes

CAP—Computer Applications; CDA—Computer Design/Architecture; CIS—Computer Information Systems; CGS—Computer General Studies; COC—Computer Concepts; COP—Computer Programming; COT—Computing Theory;

CAP 3700 Introduction to Computer Graphics (3). A first course in computer graphics. Course includes several programming assignments using available graphics hardware. There is considerable emphasis on the use of an available graphics software package. Prerequisites: CGS 3420 or COP 3212, and MAC 3313.

CAP 5680 Expert Systems (3). Introduction to expert systems, knowledge representation techniques and construction of expert systems. A project such as the implementation of an expert system in a high level AI-language is required. Prerequisite: COP 3530 or permission of instructor.

CAP 5701 Advanced Computer Graphics (3). Advanced topics in computer graphics: system architecture, interactive techniques, image synthesis, current research areas. Prerequisites: COP 3530 and CAP 3700 or equivalent, or by permission.

CDA 4101 Structured Computer Organization (3). This course investigates the analysis of the levels of organization of computer systems, including the conventional, microprogramming and operating systems levels. A number of major computer systems are analyzed. Prerequisites: COP 3522 or COP 3212, and COP 3400 and MAD 3104.

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include logic elements, arithmetic logic units, control units, memory devices, organization and I/O devices. Prerequisites: MAD 3104 and CDA 4101.

CDA 4500 Data Communications (3). Study of communications-based systems, common carrier facilities, tariffs, and related equipment. Analysis and design of communications networks utilizing various techniques. Uses of communications for data collection, remote computing, message switching. Prerequisite: CDA 4101.

CDA 5312 Microprocessing for Software Designers (3). Design of application software for OEM products. Topics include: 16-bit microprocessor architecture and assembly language, LHHs for design of microprocessor software, software for multiprocessing and multiprocessor systems.

CDA 6501 Distributed Processing (3). Study of distributed systems of user and equipment using data communications facilities. Analysis of system architecture, hardware, and software for system design. System integrity and performance issues and techniques are examined. Prerequisites: COP 6611, CDA 4500 and STA 6807.

CDA 6939 Special Topics: Advanced Topics in Computer Architecture (3). This course deals with selected special topics in computer architecture. Prerequisite: Permission of Instructor.

CGS 2060 Introduction to Microcomputers (3). A survey of small computers and applications for students without technical background. Topics include: Computer hardware, software, selected applications programs, and programming in BASIC. Not acceptable for credit to Computer Science majors.

CGS 3061 Introduction to Computers and Computer Applications (3). A survey of computers and their applications: hardware, software, computer systems operation, advanced computer systems, acquiring and using computer power, systems analysis, computer impact on society. Not acceptable for credit to mathematical science majors (mathematics, computer science, statistics).

CGS 3062 Computers and Society (3). A course for the student who is interested in the effects of computers upon our society. The major focus will be upon social, political, and ethical considerations: what computers are and how they work; applications, such as data banks government uses, simulation; considerations such as privacy and the police state, the cashless society, computers and business, computers and the quality of life, systems analysis and the planned society The course is oriented toward the non-scientist and requires no background in mathematics, computer science, or social science. As part of the course, students will learn to write and run a simple computer program.

CGS 3403 COBOL for Non-Computer Science Majors (3). Introduction to COBOL and historical background. Flow-charting and program design. This course is not for computer science majors.

CGS 3420 FORTRAN for Engineers (3). A first course in programming that describes the syntax and semantics of the FORTRAN 77 programming language. The development of algorithms will be discussed together with fundamentals of program testing and debugging. Emphasizes those aspects of the language required by students of engineering and natural sciences. Not acceptable for credit for Computer Science majors.

CIS 3900 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

CIS 3930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 4610 Introduction to Software Engineering (3). Basic tools and techniques for specifying, designing, implementing, verifying, and testing large programs. Topics include: requirements, diagrams, data flow analysis, top down design, implementation, and testing; module organization and development techniques, program correctness, the Software Life Cycle, and an introduction to software management techniques. Prerequisites: COP 3522 or COP 3212, and COP 3400.

CIS 4905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

CIS 4930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 5611 Software Engineering (3). This course deals with the design of large scale computer programs. Included are topics dealing with planning design, implementation, validation, metrics,and the management of such software projects. Prerequisite: COP 3530.

CIS 5900 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

CIS 5931 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 6327 Statistical Computer Performance Evaluation (3). An introduction of the tools for quantitative, statistical and rational design, analysis, and optimization of complex computer systems. Prerequisites: STA 6807 and COP 6611.

CIS 6410 Computer Management (3). This course deals with the effective evaluation and administration of the computer function within an organization.

CIS 6612 Special Topics: Advanced Topics In Information Processing (3). This course deals with selected special topics in information processing. Prerequisite: Permission of Instructor.

CIS 6931 Special Topics: Advanced Topics In Numerical Methods (3). This course deals with selected topics in numerical methods. Prerequisite: Permission of Instructor.

CIS 6932 Special Topics: Advanced Topics In Software Engineering (3). This course deals with selected topics in software engineering. Prerequisite: Permission of instructor.

CIS 6935 Seminar In Contemporary Computer Science (3). Research Seminar in Contemporary Computer Science. Topics will vary from term to term. Prerequisite: Permission of instructor.

CIS 6970 Thesis (1-10). Completion of all other requirements for the M.S. Degree in Computer Science.

CIS 6980 Ph.D. Thesis (1-10). PH.D. Thesis. Prerequisite: Prerequisite: Permission of Instructor.

CIS 7910 Graduate Research (1-25). Doctoral research prior to candidacy. Repeatable. Prerequisite: Permission of Department.

COP 2172 Programming In BASIC (3). Introduction to the BASIC computer language with emphasis on business data processing applications. Using the interactive and batch facilities of the machine, concepts on file organization and techniques for processing are examined. Prerequisite: None. Not acceptable for credit to computer science majors.

COP 3120 Data Processing and COBOL (3). A course in programming, oriented toward data processing applications. Various techniques for organizing and processing files; sequential file random- access, indexed and inverted files. File sorting and maintenance. Program documentation. Instruction for COBOL programming language. Applications of computers and data processing in business. Prerequisite: COP 3522 or COP 3212.

COP 2939 Cooperative Education In Computer Science (3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervisor evaluation is required of each student. Prerequisites: Calculus I and COP 3210.

COP 3210 Programming In PASCAL (3). A course in the fundamentals of digital computer programming. The concept of an algorithm; pseudo-code; programming; testing and debugging using a well- structured language. The syntax and semantics of PASCAL.

COP 3212 Intermediate Programming (3). Covers advanced topics of the PASCAL programming language such as set types, pointer types, recursion, and files; syntax and semantics of FORTRAN 77. Prerequisite: COP 3210 or equivalent.

COP 3400 Assembly Language Programming (3). Principles and techniques of digital computers with emphasis on machine language and assembly language programming. Internal representation of numeric and non-numeric information; registers, indexing and computer structure; arithmetic, logical and input-output instructions; fixed and floating arithmetic. Prerequisites: COP 3182 or CGS 3420.

COP 3530 Data Structures (3). Basic concepts of data organization, running time of a program, abstract types, data structures including linked lists, n-ary trees, sets and graphs, internal sorting. Prerequisites: CIS 4610 and MAD 3104.

COP 3939 Cooperative Education In Computer Science (3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervisor evaluation is required of each student. Prerequisites: Calculus II and COP 3212.

COP 4540 Database Management (3). Logical aspects of databases. Topics include: Semantic Binary Model; Relational Model; Network Model; Hierarchical Model; Database Design; Fourth-generational languages; SOL. Corequisite: COP 3530.

COP 4555 Survey of Programming Languages (3). A comparative study of several programming languages. Emphasis is given to design, evaluation and implementation. Programs are written in a few of the languages. Prerequisite: COP 3212.

COP 4610 Operating Systems Principles (3). A study of the basic principles of modern multiprogramming and time-sharing systems. Interrupts and data channels, multiprocessor system memory management, virtual memory, segmentation, process communication, deadlock, and interlock handling. Prerequisites: CIS 4610 and CDA 4101.

COP 4939 Cooperative Education In Computer Science (3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervisor evaluation is required of each student. Prerequisites: MAC 3312, STA 3033 and COP 3120.

COP 5621 Compiler Construction (3). Basic techniques of compilation; self-compilers; syntax encoding and recognition; code generation and optimization. Prerequisites: MAD 3512 and COP 3530.

COP 6611 Advanced Operating Systems (3). Topics in operating system design: concurrent scheduling, security and protection, virtualizable architectures and monitors. Prerequisite: COP 4610.

COP 6545 Advanced Topics In Database Management (3). Architecture and implementation aspects of DBMS; Distributed databases; Semantic models; advanced database languages, including Prolog-like languages; Semantic aspects of databases; Database machines. Prerequisite: COP 4540 or COP 5540.

COT 5420 Theory of Computation I (3). Abstract models of computation; halting problem; decidability and undecidability; recursive function theory. Prerequisite: MAD 3512.

COT 6400 Analysis of Algorithms (3). Complexity behavior of algorithms is described for Set Manipulation, Graph Theory, and Matrix Manipulation problems, among others. P and NP classes of problems reveal an inherent difficulty in designing efficient algorithms. Prerequisite: COP 3530.

COT 6421 Theory of Computation II (3). Verification of program correctness; program schemes; fixed-point theory of programs; resolution and theorem proving. Prerequisite: COT 5420.

COT 6930 Special Topics: Advanced Topics In Theory (3). This course deals with selected special topics in computing theory. Prerequisite: Permission of instructor.

MAP 6127 Simulation and Modeling (3). Two areas are covered in this course: advanced queueing models and simulation techniques. The relationships between these two areas, applications, and simulation languages will be among the topics covered. Prerequisites: COP 3530; and MAP 5117 or STA 6807.

Economics

Jorge Salazar-Carrillo, *Professor and Chairperson*
Suphan Andic, *Visiting Professor*
Wilbert Bascom, *Visiting Professor*
Manuel J. Carvajal, *Professor*
Robert Cruz, *Assistant Professor*
Irma de Alonso, *Associate Professor*
Amitava Dutt, *Associate Professor*
Maria Dolores Espino, *Assistant Professor*
Mostafa Hassan, *Visiting Professor*
Antonio Jorge, *Professor of Political Economy*
Manuel Lasaga, *Visiting Professor*

Arthur Lermer, *Visiting Professor*
Panagis Liossatos, *Associate Professor*
J. Kenneth Lipner, *Assistant Professor*
Raul Moncarz, *Professor*
D.S. Prasada Rao, *Visiting Professor*
Edwin Reubens, *Visiting Professor*
Carlos Seville, *Assistant Professor*
Mira Wilkins, *Professor*
Maria Willumsen, *Assistant Professor*

The major in economics provides the student with an understanding of economic problems and institutions, and analytical tools to apply this knowledge to contemporary problems. The program is designed for the student desiring a career in industry, government, international agencies, or teaching; and for those planning professional or graduate study in economics, business, law, public administration, urban studies, or international relations.

Degree: **Bachelor of Arts**

Lower Division Preparation
To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Required Courses: None
Recommended Courses: Six semester hours in principles of economics; three semester hours in social science; six to nine semester hours in humanities; six semester hours in English composition; six semester hours in college algebra and trigonometry; three semester hours in statistics.

Remarks: The student who has not taken Principles of Economics must enroll in ECO 3021 and ECO 3011 during the first two semesters at the University. Students who expect to go beyond the B.A. level in economics are advised to begin calculus at the lower division level.

Upper Division Program: (60 semester hours)
Required Courses

ECO 3101	Theory of Price	3
ECO 3203	Aggregate Economic Analysis	3
ECO 3271	Topics in Theory	3
ECO 3303	Development of Economic Thought	3
ECO 4421	Introduction to Econometrics	3
Additional Economics Courses[1]		15
Electives		30

[1]ECO 2013, ECO 2023, ECO 3011, ECO 3021, ECO 3040, and ECO 3431 cannot be included in this grouping of Electives.

Students may choose to concentrate their studies in one of the following areas: Urban and Environmental Economics; Labor Economics; International Economics, Economic Development; Monetary Theory; Latin American Economics; and Quantitative Methods

Minor in Economics
Required Courses

ECO 3101	Theory of Price	3
ECO 3203	Aggregate Economic Analysis	3
Additional Economics Courses[1]		9

[1]ECO 2013, ECO 2023, ECO 3011, ECO 3021, ECO 3040, and ECO 3431 cannot be included in this grouping.

Remarks: Introductory courses in calculus and statistics are strongly recommended for the student minoring in economics.

Master of Arts in Economics
To be admitted into the Master's degree program in Economics, a student must meet the University's graduate admission requirements and:

1. Have a 'B' average (3.0) or higher during the last two years of undergraduate studies, or a combined score (verbal, quantitative, and analytic) of 1,500 or higher on the GRE, or both. (If a student has taken the Graduate Record Examination before the new system was introduced and scored 1000 or higher on the combined verbal and quantitative sections, the student does not have to retake the examination.)
2. Receive approval of the departmental graduate committee;
3. Have taken as prerequisites intermediate microeconomics, intermediate macroeconomics, statistics, and calculus. A student who has not fulfilled all these prerequisites may be admitted on a provisional basis. Unless specifically exempted, the student must take these courses as required, obtaining no credit for them in the program.

Degree Requirements: The Master's degree program will consist of 30 semester hours of course work, at a graduate level (course numbers 5000 or above). A maximum of six semester hours may be transferred into the program subject to the approval of the graduate committee. All courses listed below carry 3 credits, except the thesis (6 credits). The specific requirements are:

Core Semester Hours

ECO 5114	Microeconomic Analysis	3
ECO 5205	Macroeconomic Analysis	3
ECO 7424	Econometric Methods I	3

Additional Requirements: (12-15 semester hours) Students will be required to write a thesis for 6 credits, (ECO 6971), or take the advanced seminar in applied economics (ECO 6939), which involves writing a research paper.

Electives: (15-18 semester hours) A student must take at least four electives in economics. The additional one or two courses required to complete the Master's program may be taken in Mathematics, International Studies, the College of Business Administration, the School of Public Affairs and Services, or in the other college or schools of the University. The graduate committee must approve courses taken outside the department.

Graduation Requirements: To receive the Master's degree in Economics, the student must complete 30 hours of course work with a 'B' average or higher; must receive a least a 'B' in the core courses; and must receive a grade of 'C' or higher in each course. If the student decides to write a thesis, he must receive the grade of 'PASS' for ECO 6971.

Doctor of Philosophy in Economics
The requirements for admission to the doctoral program in Economics are:

1. A baccalaureate degree from an accredited university or college.
2. A minimum GPA of 3.0 from the last two years of the undergraduate education or a minimum score of 1650 on the three-part GRE (which every candidate must take). Foreign students whose native language is not English must take the TOEFL and obtain a score of 550 or higher.
3. Three letters of recommendation from persons in a position to judge the applicant's suitability for graduate study in economics.
4. Approval of the Graduate Studies Committee of the Department of Economics.
5. The following courses at the undergraduate level: Intermediate Microeconomics, Intermediate Macroeconomics, Statistics, and Calculus. Unless specifically exempted, students must take these courses as required. No graduate credit will be awarded for these courses. These courses are prerequisites for most graduate courses and students cannot take the latter unless they take the prerequisites, or are specifically exempted by the instructor of the course.

The Ph.D. program is independent of the existing master's program in Economics and students in that program must apply for admission as Ph.D. students. Certain courses taken in the master's program, however, may be transferred and used to fulfill the requirements of the Ph.D. program, with the approval of the Graduate Studies Committee.

Degree Requirements: To obtain the Ph.D. in Economics, students must complete the required coursework and fulfill dissertation requirements.

Coursework
1. Requirements: Students must complete 48 hours (16 courses) of graduate level coursework. Supervised research, independent studies, seminars, and dissertation credit do not count towards this objective.

This required minimum of 16 courses consists of eight courses in the Core, six courses in three Fields of Specialization (at least two courses per field, some fields may have special requirements), and two electives as approved by the student's advisor who will be assigned to the student at the time of admission to the program.

Core Courses:

ECO 7115	Microeconomic Theory I	3

ECO 7116	Microeconomic Theory II	3
ECO 7206	Macroeconomic Theory I	3
ECO 7207	Macroeconomic Theory II	3
ECO 7405	Mathematical Methods in Economic Analysis	3
ECO 7424	Econometric Methods I	3
ECO 7425	Econometric Methods II	3
ECO 7305	History of Economic Thought	3

Fields of Specialization:

Advanced Economic Theory
Economic Development
Economics of Human Resources
Economics of Latin America and the Caribbean
International Economics
Monetary Economics
Urban and Regional Economics

2. First Year of Graduate Study: Students are required to take courses, which must at least include the first six courses in the core as listed above. At the end of the year, students are required to pass a comprehensive qualifying examination on core theory - the first four of the core courses listed above. A student who fails twice will not be allowed to remain in the program.

3. Second Year of Graduate Study: Students will be required to take Econometric Methods II (with research paper), History of Economic Thought, and complete coursework in two "major fields" of specialization. The designation "major field" is to indicate a chosen field in which students must pass field examinations by the end of the second year. In contrast, the term "minor field" designates a chosen area that does not require a "field examination" and the courses of which do not have to be taken by the second year. Students who fail twice any of their field examinations will not be allowed to continue in that field.

Dissertation Work

Upon completion of field examination requirements, students will be required to choose a specific area of doctoral research. During this phase, which will normally have a total length of two years, the student will:

a. Conduct research and complete a dissertation,

b. Continue taking courses,

c. Attend Advanced Workshops by enrolling in ECO 7925 in the dissertation area and present at least one paper a year on the work in that workshop.

Students will normally be required to be enrolled as full-time students at the University for at least a year during the dissertation period. Except under abnormal circumstances, the maximum number of years during which a student may do dissertation work is five years.

Graduation Requirements: To graduate, students must complete all course requirements; fulfill workshop presentation requirements, pass the comprehensive and field examinations, and complete the oral defense and acceptance of the Ph.D. dissertation.

Course Descriptions

Definition of Prefixes

ECO—Economics; ECP—Economic Problems and Policy; ECS—Economic Systems and Development.

ECO 2013 Macro Principles (3). Introduction to economics from the aggregate point of view. National income accounting, monetary and fiscal policy and their interaction in the economy.

ECO 2023 Micro Principles (3). Introduction to economics from the individual point of view. Traditional supply and demand determination and analysis.

ECO 3011 Economics, Man and Society-Macro (3). Relationship of economics to aggregate income. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups. Public issue interpretation in the light of economic theory.

ECO 3021 Economics, Man and Society-Micro (3). Relationship of economics to individual action. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups.

ECO 3040 Consumer Economics (3). Consumer behavior; advertising and other influences affecting demand. Patterns of consumer expenditure; effects of public policy on family incomes and consumption patterns. The consumer protection movement.

ECO 3101 Theory of Price (3). Operation of individual markets; market structure; theory of the firm; theory of production; demand theory; general equilibrium and welfare economics. Recommended preparation: ECO 3011 and 3021.

ECO 3203 Aggregate Economic Analysis (3). Analysis of the measurement, determination, and control of aggregate economic activity; the monetary system in relation to income and employment; short-term income fluctuations; long-term growth. Recommended preparation: ECO 3011 and 3021.

ECO 3223 Money and Banking (3). Elements of monetary theory; relationships between money, prices, production, and employment; factors determining money supply; history and principles of banking, with special references to the United States.

ECO 3271 Topics in Theory (3). Welfare economics; analysis of factor markets and income distribution; growth theory. Prerequisites: ECO 3101 and ECO 3203.

ECO 3303 Development of Economic Thought (3). Evolution of economic theory and doctrine. Contributions to economic thought from ancient times to J. M. Keynes. Emphasis on institutional forces shaping the continuum of economic thinking.

ECO 3431 Applied Macroeconomics (3). Aggregate economic performance and business conditions analysis. The nature and causes of business fluctuations. Economic expansions and stagflation. Public policies for economic stability; fiscal policy, monetary policy and income policy. Sectoral analysis and macroeconomic forecasting. Recommended preparation: ECO 3011 and 3021.

ECO 3933 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 3949 Cooperative Education in Economics (3). A student majoring in Economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

ECO 4224 Issues in Money and Banking (3). Formulation and execution of monetary policy. Analysis of monetary policy as it has been carried out in recent years, and as it should be conducted.

ECO 4321 Radical Political Economy (3). The relationship between Marxist and orthodox economists. Attention given to the New Left and other current criticisms of capitalist economies. Multinational corporate policy, concentration of economic power, income distribution, and Third World development.

ECO 4401 Introduction to Mathematical Economics (3). Mathematical formulation of economic theory. Mathematical treatment of maximizing and optimizing behavior; applications to consumer and business firm theory, value, economic strategies, growth and stability. Emphasis on understanding of analytical techniques. Recommended preparation: ECO 3101 or ECO 3203, and Calculus.

ECO 4410 Measurement and Analysis of Economic Activity (3). Statistics with special reference to economics, including the following topics: quantitative economics, descriptive statistics, probability and inference, and regression analysis applied to economics. Prerequisite: STA 3122 or permission of instructor.

ECO 4421 Introduction to Econometrics (3). Introduction to measurement in economics; numerical evaluation of mathematical models by statistical methods; survey of classical models; discussion of the scope and method of econometric analysis. Prerequisites: ECO 3101, ECO 3203, and ECO 4410 or permission of instructor.

ECO 4504 Economics of Government Spending and Taxation (3). Describes the way resources are allocated in a market economy and cases where markets fail. Analyzes government expenditure policy, principles of taxation, and the various taxes in use today. Prerequisites: ECO 3011 and 3021.

ECO 4622 Economic Development of the United States (3). The growth of the American economy from colonial times to the present. Special emphasis on market forces, institutional arrangements, and policies contributing to this process.

ECO 4623 American Business History (3). The growth of American business from 1880 to present; integration, diversification, and foreign expansion. Business strategies and managerial structures.

ECO 4632 European Economic History (3). The development of Mediterranean and Western European economies, from the earliest times to the 20th Century. Attention is centered on capital accumulation, technology, trade, industrialization, monetary factors, and the role of government in economic organization.

ECO 4701 World Economy (3). A broad overview of the international economy in historical perspective. Topics: economic demography, trade flows, capital movements, diffusion of technology, the emergence of transnational institutions. The student obtains a conception of how economic interdependence has developed.

ECO 4703 International Economics (3). Principles of international trade and balance of payments; significance of geographic, economic, social, and political influences; current problems in international trade and payments; tariffs and commercial policy; role of international organizations. Recommended preparation: ECO 3101.

ECO 4713 International Monetary Relations (3). International money and capital markets; international financial institutions. Interpretation of balance of payments statements. Adjustments to disequilibria, through changes in prices, exchange rates, and national income. Recommended preparation: ECO 3203.

ECO 4733 Multinational Corporation (3). Growth and development of multinational enterprise. Theories of direct foreign investment. Impact on the United States and other developed and less developed nations. Policy implications relating to employment, economic growth, balance of payments, taxation, and national defense. National sovereignty and the multinational corporation.

ECO 4906 Undergraduate Tutorial (3). Supervised readings, individual tutorial, and preparation of reports. Requires consent of faculty supervisor and Department Chairperson.

ECO 4934 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 4949 Cooperative Education in Economics (3). A student majoring in economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

ECO 5114 Microeconomic Analysis (3). Introduction to the theory of the firm, utility theory, and market behavior under competitive, monopolistic and oligopolistic conditions; the theory of the optimal allocation of resources. Prerequisites: Intermediate microeconomics, Calculus I; Calculus II recommended.

ECO 5205 Macroeconomic Analysis (3). Introduction to the theory of unemployment, inflation, cycles, growth and the balance of payments. Prerequisites: Intermediate macroeconomic theory, Calculus I, Statistics; Calculus II recommended.

ECO 5403 Mathematical Methods in Economic Analysis (3). Application of mathematical methods to economics. The topics and tools of mathematical economics are presented in a rigorous fashion within an economic context. Prerequisites: Calculus I, ECO 3101 and ECO 3203, or equivalents.

ECO 5709 The World Economy (3). Designed to give an overview of the crucial issues in the world economy. The course covers trade, capital, labor, and technology flows; transnational economic organizations; current economic crisis; global economic interdependence; and the nature and characteristics of international economic order. Required for MIB Program.

ECO 5735 Multinational Corporations (3). Economic theory and multinational corporations. Economic effects. Consequences of nationalization. Spread of the multinational form. State-owned multinational corporations. Prerequisite: Permission of instructor for undergraduates.

ECO 5906 Advanced Individual Study (3). Supervised readings, individual tutorial, and preparation of report. Requires consent of faculty supervisor and Department Chairperson. Open to seniors and graduate students.

ECO 5936 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 5945 Internship (3). Directed individual study which assists the student in using economic analysis in his employment. Prerequisite: Permission of the instructor.

ECO 6936 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 6938 Individual Graduate Study (6-9). Supervised readings, tutorial, and preparation of report. Open only to graduate students. Requires consent of supervisor and approval of Department Chairperson.

ECO 6939 Advanced Seminar in Applied Economics (3). Variable-topic study group in application of economic analysis to specific problems. Open to seniors and graduate students.

ECO 6971 Thesis (6). Writing and completion of thesis by candidate for a Master of Arts. Prerequisites: Student must be a Master's degree candidate, have had at least 15 hours of graduate work in economics; have a thesis topic approved by the Department's Graduate Committee and permission from the instructor.

ECO 7115 Microeconomic Theory I (3). Models of consumer and producer behavior, partial equilibrium analysis of product and factor markets, two/sector models of general equilibrium and welfare economics. Prerequisites: ECO 3101 or equivalent, Calculus I; Calculus II recommended.

ECO 7116 Microeconomic Theory II (3). The Hicks/Samuelson and Arrow/Debreu models of general equilibrium. Activity analysis and competitive equilibrium. Capital theory. Leotief/Sraffra/Marx Systems. Temporary equilibrium and money. Prerequisites: ECO 7115 and ECO 7405.

ECO 7118 Graduate Seminar in Economic Theory (3). Variable-topic graduate study group in theoretical problems. Open only to students with graduate standing.

ECO 7135 Growth, Distribution and Prices (3). Alternative theories of growth, income distribution and prices. Basic growth models; neoclassical capital theory and Cambridge controversies; neo/Marxian, neo/Keynesian and other approaches. Prerequisites: ECO 7116, ECO 7207, ECO 7405.

ECO 7136 Classical and Marxian Economic Theory (3). Classical and Marxian theories of value and capital in a mathematical mode. The Transformation Problem. Simple and expanded reproduction. The falling rate of profit and other Marxian crises. Prerequisites: ECO 7115, ECO 7206, ECO 7405, ECO 7116.

ECO 7206 Macroeconomic Theory I (3). Analysis of macroeconomic models of income determination and the price level, microeconomic foundations of macro-behavior, macroeconometric models, and basic open economy macroeconomics. Prerequisites: ECO 3203, ECO 4417, or equivalents; Calculus I; Calculus II recommended.

ECO 7207 Macroeconomic Theory II (3). Alternative approaches to macroeconomic theory. Business cycle theories and theories of growth and income distribution. Prerequisites: ECO 7115, ECO 7206, ECO 7405.

ECO 7216 Monetary Theory and Policy (3). Relationship of money supply and interest rate to economic stabilization. Consideration of federal reserve system, money market, and factors determining money supply and demand. Neo-Keynesian, Chicago, and radical policy views.

ECO 7236 Money, Banking, and Monetary Policy (3). Monetary theory and its application. Consideration of central banking in the U.S. and its relation to the international economy, money markets, and financial intermediaries. Survey of current policy views.

ECO 7305 History of Economic Thought (3). Exploration of the evolution of economic thought and analysis in the changing socio/historical, institutional and political setting in which it takes place. Prerequisite: Permission of instructor

ECO 7315 Graduate Seminar in Economic Theory (3). Variable-topic graduate study group in theoretical problems. Open only to students with graduate standing.

ECO 7405 Mathematical Methods in Economic Analysis (3). Application of mathematical methods to economics. The topics and tools of mathematical economics are presented in a rigorous fashion within an economic context. Prerequisites: Calculus I, ECO 3101 and ECO 3203, or equivalents.

ECO 7424 Econometric Methods I (3). Practical and theoretical foundations of empirical economics. Knowledge in formulation, estimation, and evaluation of econometric models. Prerequisites: ECO 4410 or equivalent; Calculus I; Calculus II recommended.

ECO 7425 Econometric Methods II (3). A continuation of ECO 7424. Advanced single equation estimation, estimation of distributed lags, simultaneous equations, time series and models of qualitative choice. Prerequisites: ECO 7424 and MAS 3103 or equivalent.

ECO 7505 Public Finance (3). Partial and general equilibrium analysis of tax incidence efficiency, public goods, public pricing problems, the social rate of discount, and non-market decision making.

ECO 7617 Seminar in Economic History (3). Topics in economic history, exploration of the economic history literature on a selected theme, student presentations. Prerequisite: Permission of instructor for undergraduates.

ECO 7705 International Trade (3). Positive and normative aspects of international trade. Theories of comparative advantage, commercial policy, trade and income distribution. Prerequisites: Advanced Microeconomic Theory; Calculus.

ECO 7716 International Money (3). Theory of international monetary equilibrium. Problems of international payments and exchange rate control; their effect on international monetary problems. Analysis of short and long term monetary flows and macroeconomic adjustment. Prerequisites: Advanced Macroeconomics and Calculus.

ECO 7925 Advanced Workshop (3). Enables students to attend advanced workshop presentations and to present the results of their own research. Prerequisite: Completion of field examination requirements.

ECO 7980 Dissertation (Ph.D.) (1-6). To be taken every semester for research on, and writing of Ph.D. dissertation by candidates for the Ph.D. Prerequisite: Completion of field examination requirements.

ECP 3123 Economics of Poverty (3). Poverty in the United States: its measurement and history. Theory of personal income distribution. Present and proposed policies to alleviate poverty.

ECP 3302 Introduction to Environmental Economics (3). Economic principles applied to environmental problems. Relationship of market and non-market forces to environmental quality. Development of tools for policy analysis.

ECP 3613 Introduction to Urban Economics (3). Study of the urban environment, its characteristics and trends. Location behavior of firms and households. Urban financial problems, transportation, and housing.

ECP 4004 Seminar on Current Economic Topics (3). Faculty and student discussion of contemporary economic and social issues.

ECP 4203 Introduction to Labor Economics (3). Basic introduction to supply and demand for labor. Discusses labor markets in both historical and institutional context emphasizing why certain patterns have occurred and contemporary institutions developed. Prerequisite: ECO 3021.

ECP 4204 Theory of Labor Economics (3). Neo-classical theory of labor demand and labor supply, human capital theory and critiques. Current programs of human resource development and income maintenance are discussed. Prerequisite: ECO 3101.

ECP 4314 Land and Resource Economics (3). Availability, use, and control of land and other natural resources. Resource conservation, investment, and taxation. Environmental implications. Resource markets and pricing.

ECP 4403 Economic Policy for Industry (3). Governmental activities affecting business. Government regulation of business-its historical, legal, and economic perspectives, including recent developments in the United States and abroad. Government assistance to business; proposed policies. Recommended preparation: ECO 3101.

ECP 4622 Regional Economic Growth Management (3). Combines natural resource economics and the economics of public decision-making to identify and evaluate costs and benefits of public policies for managing rapid population change. Prerequisites: ECO 3011 and ECO 3021.

ECP 6605 Urban and Regional Analysis (3). Application of economic analysis to urban growth and the urban-regional environment. Consideration of public services, transportation, ghetto problems, and urban organization. Analysis of environmental protection problems and policies. Recommended preparation: ECO 3101, ECO 3203 and ECP 3303.

ECP 6715 Macroeconomic Forecasting for Management (3). Basic macroeconomics concepts as they apply to decision making within the firm. Traditional models of income determination and forecasting analysis. Prerequisite: ECP 6704.

ECP 7205 Labor and Human Resources (3). Empirical and theoretical analysis of the factors determining employment and earnings, recent developments in the theory of labor supply, critiques of neoclassical theory, and current issues in public policy. Prerequisite: Calculus.

ECP 7405 Industrial Organization (3). The organization of the industrial economy with particular emphasis as to the type of competition, the bases of monopoly power and the extent of monopoly power. Prerequisites: Advanced Micro and Calculus.

ECP 7606 Urban and Regional Economics (3). The economics of urbanization processes, internal organization of cities, and regional settlement. Spatial growth models and spatial development planning. Prerequisites: ECO 7115, ECO 5205; ECS 4013 or equivalent; ECO 6636.

ECP 7636 Location Theory (3). Systematic exposition of urban and industrial location theory. Spatial price theory and spatial competition. Prerequisites: ECO 3101 or equivalent; Calculus I; Calculus II and ECO 7115 recommended.

ECP 7705 Managerial Economics (3). Basic microeconomic concepts as they apply to decision making within the organization; supply and demand; market structure and market behavior in specific industries. Prerequisites: ECO 3021 and ECO 3011.

ECS 3003 Comparative Economic Systems (3). Analysis of alternative economic systems of industrialized and emerging nations. Emphasis on the comparative study of the capitalist, socialist, and communist economic systems of the modern world.

ECS 3402 The Political Economy of South America (3). An introduction to the political economy of the Latin American nations. Deesigned as a basis course to give the student an overview of the political economy of the nations with which we share this hemisphere.

ECS 3440 Economics of Central America (3). Survey of recent economic history of Cenfetral American countries, dealing with the institutional background and the structure of current economic activities. Special attention devoted to current problems of economic growth and social transformation.

ECS 4013 Introduction to Economic Development (3). Analysis of institutional and structural factors which determine the course of economic progress in developing countries. Characteristics of less developed areas: agriculture, investment, technology, population, international trade, economic integration.

ECS 4024 Economic Planning (3). Analysis of planning methods in capitalist and socialist economies. Evaluation of macro and micro economic planning tools (input-output) and programming techniques. Theory and practice of economic development planning of agriculture, industrialization, foreign trade, and manpower.

ECS 4403 The Latin American Economies (3). Survey of economic status and problems of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of foreign intervention and dependence, and to different attempts at economic integration.

ECS 4404 Economic Integration — Latin America (3). Analysis of the methods, meaning and implications of economics in Latin America. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation. Prerequisite: ECO 3021.

ECS 4430 The Economic Development of Cuba — Past and Present (3). Survey of the Cuban economy under capitalist and Marxist ideologies. Emphasis on the transition stage and on current policies of economic and social change.

ECS 4432 Economic Integration — Caribbean (3). Analysis of the methods, meaning, and implications of economic integration in the Caribbean. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.

ECS 4433 Economics of the Caribbean (3). Survey of the economic systems of the major British, French, Dutch, and Spanish areas in the Caribbean. Special attention devoted to current problems of economic growth and social transformation.

ECS 5005 Comparative Economic Systems (3). A critical evaluation of the design, goals, and achievements of economic policies in capitalist and socialist economies. Prerequisite: Permission of instructor for undergraduates.

ECS 5025 Economic Problems of Emerging Nations (3). Specific economic problems of emerging nations and national groupings. Basic approaches to economic development; major proposals for accelerating development. Role of planning. Trade, aid and economic integration.

ECS 6026 Development Economics: Planning and Policy (3). Planning and policy making in developing economies. Economy/wide planning models; project appraisal; financial, stabilization and trade policies. Prerequisites: ECO 7115, ECO 7116, ECO 5025, ECO 7405.

ECS 6436 The Economics of Caribbean Migration (3). The course examines the economic causes and consequences of Caribbean immigration to the United States. Special emphasis on the effects of Caribbean migration on the United States economy.

ECS 7015 Development Economics: Theory (3). Analytical approaches to economic development. Analysis of macro models, specific resources and sectors, and trade and income distributional problems in relation to developing countries. Prerequisites: ECO 3101 and ECO 3203 or equivalents.

ECS 7435 Economics of the Caribbean (3). Macroeconomic assessment; income distribution, employment and migration; industrial and agricultural development; international trade, multinational and integration attempts. Prerequisite: Permission of instructor.

ECS 7445 Economics of Central America (3). Recent economic events in region dealing with institutional background and structure of current economic activities. Special emphasis on problems of growth, social transformation and economic integration, Prerequisite: Permission of Instructor.

ECS 7405 Economics of Latin America (3). Dependence, population explosion, urban migration, agricultural reform, industrialization and import substitution, common markets. Prerequisite: Permission of instructor for undergraduates.

English

Mary Jane Elkins, *Associate Professor and Chairperson*
Harry T. Antrim, *Professor*
St. George Tucker Arnold, *Associate Professor*
Joanne Bakula, *Instructor*
Lynne Barrett, *Associate Professor*
Lynn M. Berk, *Associate Professor*
Gisela Casines, *Assistant Professor*
Maneck Daruwala, *Associate Professor*
Richard A. Dwyer, *Professor*
Charles Elkins, *Professor and Vice Provost*
Peggy Endel, *Associate Professor*
Mary Free, *Associate Professor*
Virginia Gathercole, *Associate Professor*
James Hall, *Professor*
Tometro Hopkins, *Instructor*
Kenneth Johnson, *Associate Professor*
Susan Lavin, *Instructor*
Kathleen McCormack, *Associate Professor*
Carmela Pinto McIntire, *Associate Professor*
Asher Milbauer, *Associate Professor*
Robert Ratner, *Visiting Instructor*
Meri-Jane Rochelson, *Assistant Professor*
Richard Schwartz, *Associate Professor*
Ellen Sprechman, *Instructor*
Lester Standiford, *Associate Professor*
Richard Sugg, *Professor*
Donald Watson, *Associate Professor*
Butler H. Waugh, *Professor*
Barbara Weitz, *Instructor*

Degree: **Bachelor of Arts**

Lower Division Requirements
Required Courses:

1. An introduction to literature. This requirement may be fulfilled at the University by taking ENG 2012 Approaches to Literature.

2. A two-semester survey of British or American Literature. This requirement can be fulfilled at the University. (Completion of these courses will be counted toward the requirement of 30 semester hours listed below.)

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Remarks: The prospective secondary school teacher should take the Foundations of Education courses in the lower division. Students interested in teacher certification should contact the College of Education at 554-2721.

Upper Division Program
Required Courses: (30)

LIN 3013	Introduction to Linguistics	3
or		
LIN 4341	Modern English Grammar	
ENL 4320	Shakespeare: Histories	3
or		
ENL 4321	Shakespeare: Comedies	
or		
ENL 4322	Shakespeare: Tragedies	
A two-semester survey of British or American Literature if not fulfilled in the lower division		6
Electives in writing, literature, and linguistics:		18

Electives: The English Department recognizes a continuing obligation to insure that its majors write well. The Chairperson may require any English major to take the appropriate composition course. An English major may choose to take a general program of English studies or may select one of the Department's three areas of emphasis: literature, language and linguistics, or creative writing. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program.

Minor
To earn a minor in English, students must complete a two-semester survey of British or American Literature, plus nine semester hours of upper-division English electives.

Students in the Teacher Preparation Program carry two majors - English and English Education. They must request admission to both programs. English majors may also enroll in the Linguistics, American Studies, Ethnic Studies, and Women's Studies Certificate programs.

(See Modern Language listings for additional Linguistics courses.)

Master of Arts in Linguistics
See the listing under Linguistics

Course Descriptions

Definition of Prefixes
AML—American Literature; CRW—Creative Writing; ENC—English Composition; ENG—English—General; ENL—English Literature; HUM—Humanities; LIN—Linguistics; LIT—Literature; MMC—Mass Media Communication.

AML 3011 Survey of American Literature I (3). Students read and discuss major American works written between 1620 and 1865.

Works will be considered in an historical context.

AML 3020 Survey of American Literature II (3). Students will read and discuss major American works written between 1865 and the present. Works will be examined in an historical context.

AML 3271 Afro-American Literature (3). Study of Afro-American literature from Phyllis Wheatly to James Baldwin. May be repeated.

AML 4213 Studies in Colonial and Early American Literature (3). Students read, discuss, and write about literature of the Colonial and Early American periods from the time of the Puritans through the period of the Early Republic.

AML 4225 Studies in Nineteenth-Century American Literature (3). Students read, discuss, and write about literature of 19th Century America including works of early Romanticism, Transcendentalism, and the rise of realism.

AML 4245 Modernism and Post-Modernism in American Literature (3). The course provides working definitions of modernism and post-modernism and will consider how the writers of the twentieth century use those outlooks while addressing political, social, and personal issues.

AML 4300 Major American Writers (3). Each section of this course will consider the works of one, two, or three major American writers. The writers studied in this course will change from semester to semester. The course may be repeated for credit.

AML 4503 Periods in American Literature (3). Individual sections will read and discuss works in the context of such historical settings as the colonial, federal, antebellum, reconstruction, or modern periods of the American past. May be repeated.

AML 5305 Major American Literary Figures (3). Each section will consider the lifework of several authors such as Hawthorne, Melville, Whitman, Twain, James, Faulkner, Mailer, Wright, Baldwin. May be repeated.

AML 5505 Periods in American Literature (3). The literature and criticism regarding one specified period of American Literature, such as Colonial, Federal, Transcendental, Antebellum, and Twentieth Century. May be repeated with change of period. Prerequisite: Permission of instructor.

CRW 2001 Introduction to Creative Writing (3). Beginning course designed to acquaint students with elementary critical vocabulary and writing skills necessary for the writing of poems and short fiction. Students may also be required to read and discuss published writing. Prerequisite: ENC 1101 and ENC 1102 or equivalent.

CRW 3111 Narrative Techniques (3). Analysis of and exercises in the elements of fiction: point of view, conflict, characterization, tone. Students will do various short assignments and one short story. Reading of published fiction will also be required. Prerequisite: CRW 2001

CRW 3310 Poetic Techniques (3). Analysis of and exercises in poetic techniques. Students will write poems in which they employ one or more technical skills. Reading and discussion of published poems will be required. Prerequisite: CRW 2001.

CRW 4110 Writing Fiction (5). An intermediate course in writing fiction. Prerequisite: CRW 3111

CRW 4310 Writing Poetry (5). An intermediate course in writing poetry. Prerequisite: CRW 3310

CRW 4930 Special Topics in Creative Writing (1-5). A course designed to give students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisite: CRW 2001.

CRW 4940 Independent Study in Creative Writing (3). Development and completion of an independent project in creative writing undertaken with the consent of the instructor. Prerequisite: CRW 2001.

CRW 5130 Advanced Fiction Workshop (3). Practice in the techniques and analysis of fiction through the reading, discussion and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW coursework.

CRW 5331 Advanced Poetry Workshop (3). Practice in the techniques and analysis of poetry through the reading, discussion and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW coursework.

CRW 5620 Advanced Screenwriting Workshop (3). Practice in the techniques and analysis of screenwriting through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: 9 hours undergraduate CRW coursework.

CRW 5934 Special Topics in Creative Writing (1-5). A course designed to give students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated.

CRW 6971 Creative Writing Thesis (3). Research and writing for the creative writing thesis. May be repeated. Prerequisite: 12 hours graduate CRW coursework.

ENC 1101 Freshman Composition (3). Students will be introduced to the principles and process of expository, persuasive, and reflective writing. The first of a two-semester freshman composition sequence.

ENC 1102 Techniques of Interpretation (3). A continuation of ENC 1101. Develops an analytical/aesthetic sensitivity to the writings of others and further explores the techniques of composition and library research.

ENC 1137 Essay Writing (3). A course in writing short descriptive, analytic, and argumentative essays. Does not fulfill core curriculum requirement. Students who have completed ENC 1101 or ENC 1102, or both, cannot receive credit for this course.

ENC 2001 Modes of Inquiry (3). A research and report writing course. A final research project is required. Basic bibliographical tools, library use, and technical and scientific reporting will be the main subject matter. There will also be an emphasis on style, structure, and tone in a variety of research modes.

ENC 2301 Expository Writing (3). This course deals explores the and practice in the organization, content, and style of business letters of all kinds: special correspondence formats (bid proposals, customer relations), memoranda, feasibility reports, speeches, and group conference reports.

ENC 3200 Business Letters and Reports (3). Intensive instruction technical and semitechnical information: technical description, information gathering, general technical reports, organization and development of information, process communication.

ENC 3210 Technical Writing (3). Effective presentation of professional, and scientific students needing practice in collecting, organizing, interpreting, and presenting factual material.

ENC 3211 Report and Technical Writing (3). For business, techniques of organizing and focusing the extended essay, with primary emphasis placed on continuity of argument and sustained presentation of a complex theme.

ENC 3311 Advanced Writing and Research (3). Provides instruction in the concepts and methods of critical response and argumentation, and in the formulation, analysis, and presentation of original research in extended academic papers. Prerequisites: ENC 1101, ENC 1102 or equivalent.

ENC 4240 Report Writing (3). Instruction and practice in writing reports for practical purposes. Collecting, organizing, and interpreting facts, then writing up findings in report form and style. Includes recommendation reports, use of graphical elements, writing manuals and instructions, physical research reports, feasibility reports, progress reports, other specialized report formats. Prerequisite: ENC 3200 or ENC 3210.

ENC 4241 Scientific Writing (3). Develops skills necessary to write laboratory reports, scientific proposals, articles, research reports, progress reports, and seminar presentations.

ENG 2012 Approaches to Literature (3). In this course, students will study the process of analyzing the meaning and artistry of literary texts. They will read and interpret representative poems, short stories, and plays.

ENG 2100 Introduction to Film (3). This course will introduce students to the basic artistic and compositional elements of film and the analysis of the relationship between technical and aesthetic aspects of film. Prerequisite: ENC 1101.

ENG 3138 The Movies (3). Viewing and discussion of films, with attention to cinematic ways of story-telling and to the popular film as an expression of cultural values. May be retaken for credit with change of content.

ENG 3949 Cooperative Education In English (3). A student majoring in English may spend several semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

ENG 4022 Rhetoric and Poetics (3). Ancient and modern theory and practice in discussing the formal properties of elevated language.

ENG 4121 History of the Film (3). Discussion, with examples, of the development of cinematic art, from its European and American beginnings to its place as a major world art form.

ENG 4132 Studies In the Film (3). Intensive examination of the work of a particular nation, group, or director. May also explore various film genres, e.g., documentary, horror, the Western. With change of content, may be retaken for credit.

ENG 4906 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations, with the consent of the instructor.

ENG 4936 Honors Seminar (3). Designed specifically for honors students and other superior, highly motivated students. Seminar topics will vary from semester to semester.

ENG 4949 Cooperative Education in English (3). A student majoring in English may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

ENG 5009 Literary Criticism and Scholarship (3). Techniques and goals of humanistic research, bibliography, and critical commentary.

ENG 5018 Practical Criticism (3). Applies various critical theories-e.g. the formalistic, historical, structural, archetypal, sociological, etc.-to specific literary productions.

ENG 5058 Form and Theory of Contemporary Literature (3). Various approaches and theories of practice in the major genres of imaginative writing, including development and articulation of the creative esthetic. May be repeated. Prerequisite: Permission of instructor.

ENG 5907 Independent Study (VAR). Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson.

ENG 6909 Independent Study (VAR). Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson.

ENL 3012 Survey of British Literature I (3). Students will read and discuss major British works written from the Old English period through 1750. Works will be examined within an historical context.

ENL 3022 Survey of British Literature II (3). Students will read and discuss major British works written between 1750 and the present. The works will be examined in an historical context.

ENL 3122 Nineteenth-Century British Novel (3). Students analyze a selection of novels from the British Nineteenth Century in an historical context.

ENL 4210 Studies in Medieval Literature (3). Students will read, discuss and write about works of medieval English literature from the time of Beowulf to that of Chaucer.

ENL 4220 Studies in Renaissance Literature (3). Students will read, discuss, and write about works of the English Renaissance excluding William Shakespeare.

ENL 4230 Studies in Restoration and 18th-Century Literature (3). An in-depth study of the major figures in English Literature from 1660 to 1800, a period of transition between the Renaissance and modern times. Some of the writers who will be studied are Dryden, Pope, Swift, Jonson, and Fielding.

ENL 4260 Studies In 19th-Century British Literature (3). Students will read, discuss, and write about literary works produced by British Romantic and Victorian writers between the Age of Wordsworth and the death of Queen Victoria.

ENL 4273 Studies In Modern British Literature (3). This course focuses on the literature of the 20th Century, limiting itself to British writers, but including the various genres of the modern and post modern periods.

ENL 4303 Major British Writers (3). Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.

ENL 4320 Shakespeare: Histories (3). Reading and informal dramatic interpretation of representative plays.

ENL 4321 Shakespeare: Comedies (3). Reading and informal dramatic interpretation of representative plays.

ENL 4322 Shakespeare: Tragedies (3). Reading and informal dramatic interpretation of representative plays.

ENL 4503 Periods In English Literature (3). Individual sections will read a group of literary works from one specified period of English literature, such as the Medieval, Renaissance, Victorian, twentieth-century and contemporary periods. May be repeated with change of period.

ENL 5220 Major British Literary Figures (3). Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.

ENL 5505 Periods In English Literature (3). The literature and criticism regarding one specified period of English Literature, such as Medieval, Renaissance, Victorian, Twentieth Century, and Contemporary. May be repeated with change of period. Prerequisite: Permission of instructor.

LIN 2000 Introduction to Language (3). The study of the nature of human language, its origins, and its relation to thinking behavior, and culture. An examination of the similarities and differences between spoken human languages, animal languages, and nonverbal communication (including sign language); of language variation between dialects and between different historical stages of a language; and of writing systems.

LIN 3013 Introduction to General Linguistics (3). Study of the sounds, vocabulary, and sentence patterns of standard modern English. Other topics include meaning, social and regional dialects, language change, and style.

LIN 4142 Historical Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4221 General Phonology (3). The study of phonological processes in language and linguistic methodology for phonological analysis. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4330 General Morphology and Syntax (3). The study of linguistic methodology for determining the morphological and syntactic structures of languages. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4341 Modern English Grammar (3). Practical study of syntax.

LIN 4403 Applied Linguistics (3). Linguistics in the classroom. English as a second language. Stylistics. Dialects. Prerequisite: LIN 3013.

LIN 4612 Black English (3). This course is a linguistic approach to the characteristics and functions of Black English and the current social controversies surrounding it.

LIN 4651 Women and Language (3). Examines the evidence on a variety of questions regarding women and language, including women's speech in English and other languages, "sexist language", and the relationship between language and societal attitudes towards women.

LIN 4801 Semantics (3). The study of the semantic structure of languages. The structures underlying the meanings of words and underlying syntactic structures. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4905 Independent Study (VAR). This course is designed for students who wish to pursue specialized topics in advanced Linguistics: phonetics, phonology, morphology, syntax, semantics, psycholinguistics, historical linguistics, or language contact. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 5045 Introduction to Linguistics (3). Introduction to Linguistic theory and analysis, with special emphasis on the major components of languages and modern approaches to their analysis.

LIN 5107 History of the English Language (3). Study of the development of the grammar and vocabulary represented in samples of the English language from the 8th century to modern times. Prerequisite: LIN 3013 or permission of instructor.

LIN 5146 Historical and Comparative Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Diachronic syntax and its methodology will be included. The relevance of historical comparative linguistics to similar processes found in language acquisition and to socio-linguistics will be studied. Prerequisite: LIN 5206, Phonetics.

LIN 5206 Phonetics (3). The study of the articulatory mechanisms used in producing speech sounds and of their acoustic properties. Ear training in the phonetic transcription of speech sounds used in the world's languages.

LIN 5331 General Morphology and Syntax (3). The study of linguistic methodology for determining the morphological and syntactic structures of languages. Distinct theoretical approaches to analysis will be emphasized. The student will study recent developments in linguistics that bear on language-universal and language-specific aspects of morphology and syntax. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 5382 English Syntax (3). This course will focus on syntactic analysis of English. Although the course itself is non-theoretical, it uses a variety of underlying theoretical approaches to train students in syntactic analysis.

LIN 5405 Applied Linguistics: Contrastive Analysis (3). Participants will learn to contrast the structures of languages with respect to each of their major subsystems: their phonetic characteristics, and their phonological, morphological, syntactic, and semantic subsystems.

LIN 5715 Language Acquisition (3). The study of the processes underlying normal first-language acquisition. The focus is on the development of the subsystems of language (i.e., the phonological, morphological, syntactic, and semantic subsystems) in the child's growing command of his native language.

LIN 5732 Error Analysis (3). This course focuses on the nature of linguistic errors produced by speakers in their native languages. Students will read research on errors produced by adult native speakers of a language, on first-language errors of children, and on errors made by persons acquiring a second language. Prerequisite: LIN 3013 or LIN 3010.

LIN 6222 General Phonology (3). The study of phonological process in languages and linguistic methodology for phonological analysis. Emphasis will be placed on recent theoretical questions concerning such issues as the abstractness of underlying forms, the naturalness of processes, and the relevance of markedness to a phonological description. Prerequisite: LIN 5206, Phonetics.

LIN 6342 Advanced Syntax (3). This course will expose students to the theoretical models on which much contemporary work in English grammar is based. Students will read works on selected topics such as structural linguistics, transformational grammar, and case grammar. Specific content may change from semester to semester. May be retaken for credit when content changes. Prerequisite: LIN 5382, English Syntax.

LIN 6378 Structure of a Non-Indo-European Language (3). An in-depth study of the structure of a non-Indo-European language. The particular language to be studied will be varied from semester to semester. Course may be repeated. Prerequisites: LIN 5013, LIN 5206, LIN 5222, and a course in syntax.

LIN 6602 Language Contact (3). A study of the language changes that occur when two or more languages come into contact with one another. The course will also examine the characteristics of the individuals and communities involved in such contact.

LIN 6805 Semantics (3). The study of linguistic semantic language-universal and language-specific properties of the semantic structure of words in sentences will be considered. Recent debate and theoretical aspects, including those touching on the nature of word meaning, presuppositional-assertional grammar, and Speech-Act theory, will be read and discussed. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 6905 Independent Study (VAR). This course is designed for students who wish to pursue specialized topics in advanced Linguistics: phonetics, phonology, morphology, syntax, semantics, psycholinguistics, historical linguistics, or language contact. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 6937 Seminar in Linguistics (3). Topics vary each semester. Prerequisite: A previous course in the same sub-area of Linguistics.

LIN 6971 Thesis (1-6). Prerequisite: Completion of all other requirements for the M.A. degree in Linguistics.

LIT 2010 Introduction to Fiction (3). This course offers an introduction to the basic elements of prose fiction: symbolism, plot, imagery, structure, characterization, style, point of view. Prerequisite: ENC 1101.

LIT 2030 Introduction to Poetry (3). This course offers an introduction to the basic elements of poetry: imagery, figurative language, diction, style, tone, prosody. Prerequisite: ENC 1101.

LIT 2040 Introduction to Drama (3). This course will introduce the student to the basic elements of drama and its various forms, modes, and techniques. Students will read 10-12 plays by representative English, American, and European authors. Prerequisite: ENC 1101.

LIT 2930 Special Topics (3). This course is designed to give students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 3110 World Literature I (3). This course surveys the literature of the Western world from the classical period through and including the Renaissance. It gives attention to the themes and world views these works embody, as well as to their artistry.

LIT 3120 World Literature II (3). This course surveys the literature of the Western World from the 17th century to the present. It gives attention to the themes and world views these works embody, as well as to their artistry.

LIT 3200 Themes in Literature (3). Individual sections will read and discuss works relating to topics of current and enduring interest. Discussion of literature as it reflects the identities of men and women: their places in families in past, present, and future societies, in the natural world, and the cosmic order. May be repeated.

LIT 3331 Classics of Children's Literature (3). An examination of literary texts that form part of the imaginative experience of children, as well as part of our literary heritage.

LIT 3383 Women in Literature (3). Students will examine the images of women created by European and American writers. The course will also explore the roles, historical and contemporary, of women writers.

LIT 3702 Major Literary Modes (3). Individual sections will read and discuss the literary expression of heroic, tragic, comic, satiric, mythic, realistic, or others formalized views of human existence. May be repeated.

LIT 3930 Special Topics (3). A course designed to give students an opportunity to pursue special studies not otherwise offered.

LIT 4001 Major Literary Genres (3). Individual sections will read and discuss the form and development of novels, drama, poetry, short fiction, or such special forms as biographies, folksongs and tales, or essays, among other genres. May be repeated.

LIT 4188 Regional Literature in English (3). Individual sections will discuss English writing in Ireland, Scotland, Wales, Canada, the Caribbean, India, sub-Saharan Africa, and Oceania, as well as distinctive regions in England and America. May be repeated.

LIT 4403 Literature Among the Arts and Sciences (3). Individual sections will relate the study of literature to other disciplines in the humanities, fine arts, the social and natural sciences. May be repeated.

LIT 4930 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 5363 Literary Movements (3). Individual sections will study the authors, works, and audiences involved in such phenomena as Humanism, Mannerism, Romanticism, Symbolism, the Harlem Renaissance, and others. May be repeated.

LIT 5934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 6934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

MMC 4607 Structure and Function of Mass Media (3). Will include the study of such topics as: mass communication and social order, classic studies in mass communication, propaganda.

Environmental Studies

John Parker, *Director, Chemistry*
Ken Boodhoo, *International Relations*
Bill Cooper, *Drinking Water Research Center*
George Dalrymple, *Biological Sciences*
Kelsey Downum, *Biological Sciences*
Grenville Draper, *Geology*
Maria Espino, *Economics*
Kenneth Gordon, *Biological Sciences*
Joel Gottlieb, *Political Science*
Arthur Herriott, *Chemistry*
James Huchingson, *Philosophy and Religious Studies*
Ferrokh Jhabvala, *International Relations*
Suzenne Koptur, *Biological Sciences*
Ronald Jones, *Biological Sciences*
David Lee, *Biological Sciences*
John Makemson, *Biological Sciences*
Zaida Morales-Martinez, *Chemistry*
Florentin Maurrasse, *Geology*
Howard Moore, *Chemistry*
Thomas Pliske, *Biological Sciences*
Jim Rotton, *Psychology*
William Vickers, *Sociology/Anthropology*
Christopher Warren, *Political Science*

This is an interdisciplinary program involving nine departments in the College: Biological Sciences, Chemistry, Economics, Geology, International Relations, Philosophy and Religious Studies, Political Science, Psychology, and Sociology/Anthropology. The program prepares students to work in professions with an environmental focus. The Bachelor of Science degree program emphasizes the chemical and ecological aspects of environmental analysis. The Bachelor of Arts degree is broader, with an emphasis on the political, social and economic aspects of environmental issues

Degree: **Bachelor of Science**

Lower Division Preparation
Required Courses: Equivalent of eight semester hours of both general biology and general chemistry; three semester hours of algebra and trigonometry.

Recommended Courses: Conservation of Natural Resources, Man and Environment, Calculus, General Physics.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Lower or Upper Division Requirements:

ECO 3021	Economics, Man and Society - Micro	3
STA 3122	Introduction to Statistics	3
PHY 2023	Survey of Physics	3
or		
GLY 1015, GLY 1015L	Physical Geology	4
plus		
EVR 3010	Energy Flow in Natural and Man-made Systems	3
COP 2172	Programming in BASIC	3
or		
CGS 3420	FORTRAN for Engineers	

Upper Division Program: (60 semester hours)
Recommended Courses

ENC 3210	Technical Writing	3
POS 3044	U.S. Government and Politics	3

Required Courses

EVR 4211	Water Resources	3
EVR 4231	Air Resources	3
EVR 4311	Energy Resources	3
ECP 3302	Introduction to Environmental Economics	3
PUP 4203	Environmental Politics and Policy	3
CHM 3120, CHM 3120L	Quantitative Analysis	5
CHM 3200, CHM 3200L	Survey of Organic Chemistry	4
or		
CHM 3210, CHM 3210L, CHM 3211, CHM 3211L	Organic Chemistry I and II	9
PCB 3043, PCB 3043L	Ecology	4
EVR 4920	Environmental Colloquium	3
or		
EVR 4905	Independent Study	

Students are urged to develop an area of specialization of 12 to 15 credits or a minor in consultation with an advisor. Examples are: Water, Air or Energy Resources. Biology; Chemistry; Computer Science; Geology; Ecological Analysis; **43 semester hours**

Electives	**17 semester hours**
Total	**60 semester hours**

Degree: **Bachelor of Arts**

Lower Division Requirements
Recommended Courses: Natural History of South Florida; Conservation of Natural Resources; Man and Environment; College Algebra.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Preparation: (60 semester hours)
Required Course

ECO 3021	Economics, Man, and Society - Micro	3

Upper Division Program
Required Courses

ANT 3403	Cultural Ecology	3
ECP 3302	Introduction to Environmental Economics	3
EVR 3010	Energy Flow in Natural and Man-made Systems	3
EVR 3011	Environmental Resources and Pollution	3
EVR 3013C	Ecology of South Florida	4
EVR 4905	Independent Study or Community Project	3
EVR 4920	Environmental Colloquium	3
PUP 4203	Environmental Politics and Policies	3
REL 4440	Man and Nature	3
		31

Area of Specialization Courses: The student must take at least nine additional credits in an approved area of specialization, such as energy and resource management, human ecology, international/political issues, urban/environmental planning and policy, geography or ecology. Minors are encouraged.

	40 semester hours
Electives	**20 semester hours**
Total	**60 semester hours**

Cooperative Education
Students seeking the baccalaureate degree in environmental studies may also take part

in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in industry or a governmental agency. For further information consult the Department of Cooperative Education.

Environmental Internships
Students interested in job-related academic internships should contact their advisor. Two internships are regularly available at the Big Cypress Nature Center as Naturalist Assistants (Naples, Fla.). Details on compensation, benefits, and academic credit can be obtained from Dr. J. Gottlieb (Political Science).

Course Descriptions

(Course descriptions are also found in catalog sections of all participating departments. For assistance see an advisor.)

Definition of Prefixes
EVR-Environmental Studies.

EVR 3010 Energy Flow in Natural and Man-made Systems (3). A course for non-science majors, emphasizing the study of energy flow and energy resources in natural ecosystems, agriculture and the global food and population crises, and land use.

EVR 3011 Environmental Resources and Pollution (3). A course for non-science majors, emphasizing air and water pollution, water resources, earth resources, solid waste disposal, noise pollution, and weather patterns.

EVR 3011L Environmental Science: Pollution Lab (1). Laboratory and field analyses of topics and concepts covered in EVR 3011. Corequisite: EVR 3011.

EVR 3013C Ecology of South Florida (4). A course for non-science majors, offering an introduction to the ecology of South Florida through lectures and a series of field trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. The course also deals with natural resource conservation, wildlife management, endangered species, and wilderness issues.

EVR 3931 Topics in Environmental Studies (3). An intensive analysis of several current environmental topics. Recommended for primary and secondary school teachers.

EVR 3949\ EVR 4949 Cooperative Education in Environmental Studies (3). One semester of full- time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required of each student.

EVR 4021 Survey of Environmental Problems I (3). An in-depth study of four or five environmental problems of current interest and continuing significance. The course requires competency at the college introductory level in at least three of the following: biology, chemistry, geology, physics.

EVR 4022 Survey of Environmental Problems II (3). A continuation of EVR 4021.

EVR 4211 Water Resources (3). A seminar dealing with various aspects of water use, water pollution problems, chemistry and ecology of South Florida's waters. Ecology is recommended. Prerequisites: CHM 1045 and CHM 1046 or equivalent and general biology.

EVR 4231 Air Resources (3). Common air pollutants - their sources and methods of control. Different legislative and administrative approaches will be studied. Prerequisite: CHM 1045 and CHM 1046 or equivalent.

EVR 4311 Energy Resources (3). Seminar dealing with power and energy production in modern society, fundamental energy relationships of industrial and domestic processes. Prerequisite: EVR 3010 or PHY 2023 or equivalent.

EVR 4905 Research and Independent Study (Var). The student works with a professor on a research project.

EVR 4920 Environmental Colloquium (1). An exploration of contemporary ideas on environmental issues. The course brings together faculty and students in a seminar format. Each week a subject will be presented by a faculty member or student and an open discussion will follow.

EVR 5061 South Florida Ecology: Field Studies (3). An introduction to the ecology of South Florida through a series of field trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. No science background required.

EVR 5141 Environmental Nuclear Chemistry (3). Nuclear reactions and the nature of radioactivity. Properties and uses of radioactive isotopes, fission, and fusion. Introduction to reactor technology. Consent of instructor required.

EVR 5236 Air Pollution Dynamics (3). A course designed to give an understanding of the fates of atmospheric pollutants. Scavenging processes in the atmosphere; radiation, residence times, chemical reactions, global transport process, point source dispersion and modeling calculations. Prerequisite: EVS 3360 or EVR 4231.

EVR 5315 Energy Resources and Systems Analysis (3). Detailed analysis of energy flows in natural and man-made systems. Energy systems analysis. Energy use patterns. Conventional and alternate sources of energy.

EVR 5907 Research and Independent Study (VAR). The student works with a professor on a research project. Variable credit.

EVR 5935 Special Topics (VAR). A graduate-level course dealing with selected environmental topics. The content will not necessarily be the same each time the course is offered.

EVR 5936 Topics in Environmental Studies (3). An analysis of several current environmental topics. Recommended for primary and secondary school teachers.

Geology

Florentin Maurrasse, *Professor and Chairperson*
Timothy Bralower, *Assistant Professor*
Grenville Draper, *Associate Professor*
Rosemary Hickey-Vargas, *Assistant Professor*
Gautam Sen, *Associate Professor*

The Geology Program is designed to prepare students for careers in research, teaching, and other governmental or private agencies. The main objectives of the Department is to contribute to the search for a better understanding of local geological problems, focusing especially on those related to ground water supply; and to conduct research on the geology of the Caribbean region. Well-equipped laboratories expose students to the major techniques of the sciences. The program offers both a rigorous B.S. degree in Geology and a broader-based interdisciplinary B.A. in Geology. Grades of 'D' will not be accepted for required courses in either program option.

Degree: **Bachelor of Science**

Lower Division Preparation
Required Courses: Four semester hours of general biology; four semester hours of physical geology or equivalent; four semester hours of historical geology; six semester hours of trigonometry and analytical geometry.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Lower or Upper Division Preparation:
At least six semester hours of differential and integral calculus; at least eight semester hours of general chemistry (including laboratory); at least eight semester hours of general physics with calculus (including laboratory).

Upper Division Program: (60 semester hours)
Required Courses: A minimum of 39 semester hours of geology are required:

GLY 3200	Mineralogy	3
GLY 3200L	Mineralogy Lab	1
GLY 3220	Optical Mineralogy	3
GLY 3220L	Optical Mineralogy Lab	1
GLY 3760	Geological Map Analysis	3
OCE 3014	Physical Oceanography	3
GLY 4315	Igneous and Metamorphic Petrology	3
GLY 4315L	Igneous and Metamorphic Petrology Lab	1
GLY 4401	Structural Geology	3
GLY 4450	Principles of Geophysics	3
GLY 4450L	Principles of Geophysics	

	Laboratory	1
GLY 4401L	Structural Geology Lab	1
GLY 4555	Sedimentology	3
GLY 4555L	Sedimentology Lab	1
GLY 4650	Paleobiology	3
GLY 4650L	Paleobiology Lab	1
GLY 4791	Field Geology and Geologic Mapping	3
GLY 4910	Undergraduate Research in Geology	3

Electives 21

Degree: **Bachelor of Arts**

This program is for the student who requires a broad background in geology for a career in science education or public or private administration dealing with earth and environmental sciences.

Lower Division Preparation

Four semester hours of general biology; four semester hours of physical geology or equivalent; at least six semester hours of trigonometry and analytical geometry; at least eight semester hours of general chemistry; and at least eight semester hours of general physics.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)

A minimum of 24 semester hours selected from the courses listed below. If some of these courses are unavailable, students can substitute other earth and environmental courses at their advisors' discretion.

AST 2200	Modern Astronomy	3
MET 4701	Meteorology	3
GEO 3200	Physical Geography	3
GEO 3510	Earth Resources	3
OCE 3014	Physical Oceanography	3
EVS 4164	Applied Environmental Geology	3
EVR 4211	Water Resources	3
OCB 3010	Biological Oceanography	3
GLY 4650	Paleobiology	3
GLY 3200	Mineralogy	3
GLY 3760	Geological Map Analysis	3
GLY 4401	Structural Geology	3
GLY 4791	Field Geology and Geologic Mapping	3

(*Note:* Where a laboratory course is offered with a course student must take that laboratory).

Electives 36

Minor In Geology

Required courses: GLY 1015 and GLY 1100 with labs, and four additional departmentally approved courses with accompanying labs, one of which must be at the 4000 level.

Two more courses must be completed from the following list: GLY 3220, GLY 4315, GLY 4401, GLY 4791, or OCE 3014.

Cooperative Education

Students seeking the baccalaureate degree in Geology may also take part in the Cooperative Education Program conducted with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in industry or a government agency. For further information consult the Department of Geology or the Department of Cooperative Education.

Master of Science in Geology

Admission

To be admitted to the Master's degree program in Geology, a student must meet the following minimum requirements:

1. Satisfactorily meet the University's general requirements for admission.

2. Hold a Bachelor's degree, or equivalent in a relevant discipline of Sciences or Mathematics. A maximum of 4-credit hours of advanced undergraduate course work will be allowed to count toward the Master's degree.

Students entering with a Bachelor's degree in chemistry whose graduate work will be mainly in geochemistry/petrology, or students entering with a Bachelor's degree in Physics or Mathematics whose graduate work will be mainly in geophysics should take advanced test (GRE) in the field of undergraduate specialization.

3. Have a grade point average (GPA) of 3.0 or higher (or equivalent) during the last two years of undergraduate program, and a minimum score of 1000 in the Graduate Record Examination.

4. Submit at least three letters of recommendation, preferably from persons in the academic community who are in a position to comment on the applicant's potential for graduate work.

5. Students whose native language is other than English must demonstrate adequate level of proficiency in English as a foreign language. An equivalent score of 500 on the TOEFL (Test of English as a Foreign Language), of the Educational Testing Service, or a score of 90 on the Michigan Test of English Language Proficiency is required. Foreign students who have not met this requirement may be conditionally admitted and allowed to enroll in an intensive English Program prior to beginning course work in Geology. Satisfactory English proficiency must be demonstrated within the first year of study.

Application Procedures

Admission decisions to the Program will be made by the Department's Graduate Admission Committee.

To be considered for admission applicants must submit the following documents prior to the term in which they are seeking admission:

1. FIU Graduate Application Form

2. Certified transcripts of all college level work. When applicable, a certified English translation must accompany the original.

3. Graduate Record Examination scores taken within the previous two years.

4. Scores of English Proficiency, when applicable.

5. Curriculum vitae or resume with pertinent information regarding applicant's previous experience and achievements.

6. A statement of intent, including a brief discussion (not to exceed 2000 words, including space) of educational goals and career projections. Applicant may also include a copy of previous written scientific work.

7. Three letters of recommendation from former professors or academic advisors. Apnplicants must also comply with deadlines set by the University for consideration for admission in the upcoming semester.

Degree Requirements

Program of Study

Introductory meetings with faculty members of the department are arranged for all incoming graduate students and a program of study is planned as early as possible after discussion with the chairperson of the Graduate Admission Committee.

Required Courses

A minimum of 28 credits within the Department, including.

GLY 5931, GLY 6932	Graduate Seminars	2
GLY 5286	Research Instrumentation and Techniques in Geology	4
Courses in field of specialization		16
GLY 6971	Thesis	6
Electives		8

Electives are chosen by the student in consultation with an advisor. All electives are selected to fit the student's particular professional desires.

Foreign Language Competency

All students are required to have a reading knowledge of a modern foreign language. Competency will be determined by an examination which will consist of a clear translation into English of a technical paper from French, Spanish, German or Russian. Courses taken to gain such proficiency will not be counted toward graduation. As an alternative, students may substitute 6 credits of Computer Science or Mathematics beyond Calculus II.

Apprenticeship

To be served in laboratory or field research.

Fields of Concentration

Petrology - Geochemistry

Prerequisites - Undergraduate courses in Physical Chemistry (CHM 3410), Thermodynamics (PHY 3503), Advanced Inorganic Chemistry.(CHM 4610)

Required Courses

GLY 5208	Advanced Mineralogy	4
GLY 6328	Advanced Igneous Petrology	4
GLY 6247	Trace Elements and Isotope geochemistry	4
GLY 5322	Igneous Petrology and Geochemistry	2

GLY 6392	Topics in Igneous Petrology and Geochemistry	2

Program of Study
Research problems in petrology/geochemistry of igneous rocks bearing on their origin and relationships in time and space. Applications of thermodynamics and statistical mechanics to magma genesis. Field mapping, geochemistry and petrogenesis of plutonic and volcanic rocks of the Caribbean and South American island - arc system. Application of isotope geochemistry to the study of these orogenic provinces.

Paleontology
Prerequisites - Advanced Zoology (ZOO 5335) and/or Botany. (BOT 4504), or equivalent.

Required Courses

GLY 6652	Advanced Paleontology and Evolutionary Theories	4
GLY 5621	Caribbean Stratigraphic Micropaleontology	4
GLY 6609	Advanced Paleontology II (Radiolaria, Nannoplanktons, Invertebrate, Vertebrate)	4
GLY 5608	Advanced Paleontology	2
GLY 6693	Topics in Paleontology	2

Program of Study
Biostratigraphic analyses of major fossil groups and their application to universal problems of earth history as can be exemplified in Florida, the Carribean and South America. Analyses of general problems of animal extinction, paleoecology of specific groups, evolution, and computer programs in paleontology. The Department's Caribbean Geological Collection includes the most comprehensive stratigraphic sections of the region to carry out stratigraphic analyses.

Stratigraphy - Sedimentation
Prerequisites: Undergraduate courses in Physical Chemistry, Statistics (STA 3182) and advanced Zoology (ZOO 5335)

Required Courses

GLY 5346	Sedimentary petrology	4
GLY 6159	Stratigraphy of the Circum Caribbean Region	4
GLY 5156	Florida Geology (Lithostratigraphy Paleontology, Hydrogeology)	4
GLY 5546	Topics in Stratigraphy	2
GLY 6595	Topics in Sedimentology	2

Program of Study
Research on lithostratigraphy and facies analysis of sedimentary rocks of South Florida and the circum Caribbean region. Tectonic evolution and paleoecology of sedimentary basins of these regions and their relationships to global and regional tectonic processes. Hydrocarbon assessment of potential source rocks. Structural Geology - Tectonics Prerequisites: Physics (PHY 3048, PHY 3049), and geological map analysis (GLY 3760).

Required Course

GLY 5408	Advanced Structural Geology	4
GLY 5425	Tectonics	4
GLY 6417	Caribbean Structural Geology and Tectonics	4
GLY 5446	Topics in Structural Geology and Tectonics	2
GLY 6447	Advanced Topics in Structural Geology and Tectonics	2

Program of study
Field oriented research in the circum Caribbean region on methods of structural analysis. Analysis of geologic deformation based upon the principles of mechanics and utilizing research data from laboratory and field investigations of folding, fabrics, fracture and faulting.

Geophysics
Prerequisites: General Physics (PHY 3048, PHY 3049), Classical Mechanics (PHY 4222), Differential equation (MAP 3302), and Multivariate calculus (MAC 3413).

Required Courses

GLY 5457	Advanced Geophysics I	4
GLY 5425	Tectonics	4
GLY 6497	Advanced Geophysics II (Seismic, Gravity, Paleomagnetism)	4
GLY 5495	Topics in Geophysics	2
GLY 6496	Advanced Topics in Geophysics	2

Program of Study
Field and laboratory investigations of the geophysical properties of the earth as can be examplified from the circum Caribbean area. Studies in gravity, geomagnetism. seismic reflection and refraction, earthquake seismology, and thermal history.

Regional Geology
Prerequisites: General requirements as stated above.

Program of Study
A combination of courses tailored to suit the student's particular needs. Graduation Requirements

1. A minimum GPA of 3.0 in all course work required for the 36 credits toward the master's degree.

2. Satisfactory performance on qualifying examinations on general geologic skills and field of subspecialization. Failure to pass this examination will terminate the student's admission in the program.

3. Completion and successful defense of a thesis. Members of the Thesis committee will be jointly determined by the student's advisor and the Graduate Admission Committee.

Participation in Instructional Activities
All Students in the program are required to participate in instructional aspects of the Department as teaching assistants. Specific assignments may include supervision of laboratories, assistance on field trip, or curatorial duties.

Course Descriptions

Note: Laboratories may not be taken prior to the corresponding lecture course. Laboratories must be taken concurrently where noted, but students must register for the laboratory separately.

Definition of Prefixes
EVS—Environmental Science; GEO—Geography/Systematic; GLY—Geology; MET—Meteorology; OCE—Oceanography; OCG—Oceanography—Geological; OCP—Oceanography/Physical.

EVS 4164 Applied Environmental Geology (3)
EVS 4164L Applied Environmental Geology Lab (1). A survey of the geological and geographical factors critical to man's attempt to contend with the natural processes. Construction problems, sewers, waste disposal, dams, ground water, and terrain evaluation in relation to the nature of the underlying substratum. Principles illustrated from South Florida and the Caribbean region in particular. Study of the geological factors involved in future development and growth of these areas, and conservation methods in relation to the geology of these areas. Prerequisites: GLY 1015, GEO 3200, and a sound background in mathematics, physics, and chemistry. Laboratory must be taken concurrently with the course.

GEO 3200 Physical Geography (3)
GEO 3200L Physical Geography Lab (1). Survey of the physical environment relevant to studies in regional geography and earth sciences. Natural evolution of landforms, and the interacting processes responsible for these features. Environmental modification and deterioration caused by human interaction. Effects of these changes: socio-economic impact and geographic problems. Case studies illustrated from South Florida and the Caribbean region.

GEO 3510 Earth Resources (3). A course for non-majors dealing with the nature, origin, and distribution of mineral resources. Geology of petroleum, coal, metals, etc., and problems of their exploitation and depletion.

GLY 1015 Physical Geology (3)
GLY 1015L Physical Geology Lab (1). A basic introduction to geological materials, structures, and processes. Properties of the common minerals and rocks, evolution of surface features and the internal constitution of the earth are all discussed. One or two field trips

are expected. No prerequisites. Lecture and lab must be taken concurrently.

GLY 1100 Historical Geology (3)
GLY 1100L Historical Geology Lab (1). An introduction to the geological history of the earth and the geological time scale. Evolution of animals and plants. Prerequisite: GLY 1015 or GLY 3850 or equivalent. Lecture and lab must be taken concurrently.

GLY 3157 Elements of Caribbean Geology (3). A survey of the geology of the Caribbean and neighboring regions in view of current data and modern concepts of global tectonics. The course summarizes the important points of Caribbean and Central American geology in their relation to mineral and energy resources; natural environmental disasters, especially seismic zones; agriculture; and the geologic potential for future development and industrialization.

GLY 3200 Mineralogy (3)
GLY 3200L Mineralogy Lab (1). Elementary crystallography; fundamentals of crystal chemistry and physical mineralogy. Classification of common economic and rock forming minerals; structure and classification of silicate minerals. Study of geometric and atomic crystal models and principles, and interpretation of x-ray diffraction and fluorescence techniques. Prerequisites: Physical geology or equivalent and general chemistry. Laboratory must be taken concurrently with course.

GLY 3220 Optical Mineralogy (3)
GLY 3220L Optical Mineralogy Lab (1). Principles and use of the polarizing petrographic microscope. Optical properties of isotropic, uniaxial and biaxial minerals; solution of optical problems by use of stereographic projections. Prerequisite: GLY 3200 or equivalent. Laboratory must be taken concurrently with course.

GLY 3760 Geological Map Analysis (3). Laboratory course dealing with analysis of geological maps and sections; theory and method of interpretation of surface outcrops on maps. Properties of simple geological structures. Recommended to be taken prior to GLY 4401 and GLY 4791. Prerequisites: Trigonometry, physical geology or equivalent (e.g. MAC 2132, GLY 3850 or equivalents).

GLY 3850 Environmental Geology (3)
GLY 3850L Environmental Geology Lab (1). The composition and structure of the earth, the internal and external forces acting upon it and the resulting surface features. Case studies and general principles illustrated from South Florida and the Caribbean. Two field trips expected. No prerequisites.

GLY 3949/GLY 4949 Cooperative Education in Geology (3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required for each student.

GLY 4190 Caribbean Geology Seminar (3). Discussion of various topics dealing with geographic and geologic problems involving local, national, and international influence on economic life. Similar discussion will be held on oceanographic problems related to both the aquatic and sea-bed resources. Guest speakers in the earth and social sciences will present lectures pertinent to their respective fields. Prerequisite: GLY 3157 or instructor's permission.

GLY 4315 Igneous and Metamorphic Petrology (3)
GLY 4315L Igneous and Metamorphic Petrology Lab (1). Genesis, composition, and classification of igneous and metamorphic rocks. Includes studies of experimental solid-liquid phase equilibria and mineral stabilities of silicate systems. Prerequisite: GLY 3320. Laboratory must be taken concurrently with course.

GLY 4401 Structural Geology (3)
GLY 4401L Structural Geology Lab (1). Nature and origin of rock structures and deformations, primary structures, geometry and description of folds, faults, cleavage, jointing, lineations, and other minor structures. Prerequisites: Physical geology or equivalent, and a sound background in mathematics. Laboratory must be taken concurrently with course.

GLY 4450 Principles of Geophysics (3). A general survey of the geophysical principles and methods used for the exploration of the Earth, including gravity, magnetics, electric, electromagnetic, and seismic methods. Prerequisites: GLY 1015 and OCE 3014.

GLY 4450L Principles of Geophysics Laboratory (1). Laboratory and field exercises in geophysics, including gravity, magnetic, electrical and seismic methods. Prerequisite: GLY 3360 or GLY 4401 or permission of instructor. Corequisite: GLY 4450.

GLY 4555 Sedimentology (3)
GLY 4555L Sedimentology Lab (1). Sedieementary processes in the geological cycles, as illustrated in recent environments. Different groups of sedimentary rocks. Primary and secondary sedimentary structures. Physico-chemical properties and diagenetic processes. Analytical techniques applied to modern sedimentology of both loose and lithified sediments. Prerequisites: Physical Geology or equivalent; Mineralogy; Optical Mineralogy; Paleontology, and a sound background in mathematics and chemistry. Laboratory must be taken concurrently with course.

GLY 4650 Paleobiology (3)
GLY 4650L Paleobiology Lab (1). Development of life as traced through the fossil record. Survey of the main groups of animals commonly found as fossils. Theories of evolution and extinction. Study of the major fossil groups used in biostratigraphic zonation, and as paleoecologic indicators. Prerequisites: Physical and historical geology, general biology, or the instructor's permission. Laboratory must be taken concurrently with course.

GLY 4730 Marine Geology (3)
GLY 4730L Marine Geology Lab (1). Survey of the main physiographic provinces of the ocean floor. Modern theories concerning the evolution of the crust; continental drift, seafloor spreading. Distribution and thickness of deep-sea sediments, and their relationship to the morphology and evolution of the crust. Deep-sea mineral resources. Marine geology of the Caribbean from recent data. Sea-bed assessment of mineral resources in the Caribbean and neighboring region. Prerequisites: OCE 3014, GLY 1015, or instructor's permission. Laboratory must be taken concurrently with course.

GLY 4791 Field Geology and Geologic Mapping (3). A three-week course to be offered in the United States or in the Caribbean islands. Instruction and practice in methods of geological mapping using topographic base maps and aerial photographs or plane table. Prerequisite: GLY 4401 or equivalent. Open to majors only.

GLY 4792 Caribbean Mineral Resources Field Trip (3). A three-week field course in at least two Caribbean islands. Cursory review of the geologic factors governing the occurrence, size, and economic value of mineral deposits. Emphasis is on bauxite, copper, and energy resources. Visit to selected regions of active exploitation and processing plants, as well as abandoned mines and potential sites of future exploitation. Prerequisite: GLY 3157 or instructor's permission.

GLY 4816 Mineral Deposits (3)
GLY 4816L Mineral Deposits Lab (1). Morphology and genetic processes involved in known occurrences of mineral deposits; structural factors governing their size, location and shape. Exploration, detection, and exploitation methods. Emphasis is placed on known and potential mineral deposits of the Caribbean and neighboring areas. Prerequisites: Physical Geology or equivalent, GLY 3220, and chemistry. Laboratory must be taken concurrently with course.

GLY 4910, GLY 4911 Undergraduate Research in Geology (VAR). Individual research under the supervision of a professor in the student's field of specialization or interest. Subject may deal with laboratory work, field, and/or bibliographical work. Field research in the Caribbean is encouraged. Variable credit to a maximum of 10 credits. Permission of the student's advisor is required.

GLY 5021 Earth Sciences for Teachers (3). Study of geological materials and processes, as covered in Physical Geology, but at a higher level and with additional assignments. Prerequisite: Permission of instructor. Corequisite: GLY 5021L.

GLY 5021L Earth Sciences for Teachers Laboratory (1). Study of the properties of minerals and rocks; interpretation of topographic and geologic maps; study of the geology of Florida, including field trips. Prerequisite: Permission of instructor. Corequisite: GLY 5021.

GLY 5158 Florida Geology (4). Detailed lithostratigraphic and biostratigraphic analyses of Southeast Florida and their relationship to tectonics, paleoclimates. Prerequisite: GLY 5695 or permission of instructor.

GLY 5208 Advanced Mineralogy (3). Advanced principles and applications of crystallography, mineral chemistry and physics with emphasis on the major rock forming minerals. Prerequisites: GLY 3200, GLY 3220, GLY 5240, and CHM 3410. Corequisite: GLY 5208L.

GLY 5208L Advanced Mineralogy Lab (1). Crystal symmetry and systems. Analytical methods for mineral identification and study, including transmitted and reflected light microscopy, X-ray diffraction and electron microprobe. Prerequisites: GLY 3200, GLY 3220. Corequisite: GLY 5208.

GLY 5240 Geochemistry (3)
GLY 5240L Geochemistry Lab (1). Origin of chemical elements and principles affecting their distribution in the solar system, solid earth and hydrosphere. Use of chemical data to solve geologic problems. Prerequisites: Physical Geology and General Chemistry

GLY 5286 Research Instrumentation and Techniques In Geology (3). Survey of techniques and instrumentation used in geological research, including computing and data handling. Prerequisite: Graduate standing or permission of instructor. Corequisite: GLY 5286L.

GLY 5286L Research Instrumentation and Techniques In Geology Lab (1). Introduction to advanced instrumentation and analytical techniques in Geology, including computing and data processing. Prerequisite: Graduate standing or permission of instructor. Corequisite: GLY 5286.

GLY 5322 Igneous Petrology and Geochemistry (2). Presentation and discussion of current topics in igneous petrology and geochemistry in a seminar format. Prerequisites: GLY 6328 GLY 6247 or equivalent.

GLY 5346 Sedimentary Petrology (3). Systematic study of sedimentary rocks. Special emphasis on genetical aspects, geochemistry, paleontology, mineralogy, and microfacies. Emphasizes microscopic study. Prerequisite: GLY 4555. Corequisite: GLY 5346L.

GLY 5346L Sedimentary Petrology Lab (1). Laboratory studies of sediments and sedimentary rocks with emphasis on microscopic analyses and geochemical techniques. Prerequisite: GLY 4555 and GLY 4555L. Corequisite: GLY 5346.

GLY 5408 Advanced Structural Geology (3). Advanced treatment of the theory of rock mechanics to solve problems solve natural rock deformation. Prerequisites: GLY 4401; MAC 3413; or permission of instructor. Corequisite: GLY 5408L.

GLY 5408L Advanced Structural Geology Lab (1). Problem solving in theory of rock deformation. Experimental procedures in rock mechanics. Corequisite: GLY 5408.

GLY 5425 Tectonics (3). Properties of the lithosphere; plate kinematics and continental drift; characteristics of plate boundaries; mountain belts; formation of sedimentary basins. Prerequisites: GLY 1015, 1100, 4401, 4315, 3200 or instructors permission.

GLY 5446 Topics In Structural Geology and Tectonics (2). Selected advanced topics in structural geology and rock deformation. Latest advances in crustal tectonics. Prerequisite: GLY 5408

GLY 5457 Prerequisites: Analysis of Geophysical Data (3). Reduction and interpretation of geophysical data, including time series analysis, continuation of potential fields. Three-dimensional modeling of gravity, magnetic data, integrated geophysical surveys. Prerequisites: GLY 4450, PHY 3048, PHY 3049, MAC 3311, MAC 3312, MAP 3302. Corequisite: GLY 5457L.

GLY 5457L Analysis of Geophysical Data Lab (1). Field and laboratory applications of geophysical techniques. Computer aided analysis and three-dimensional modeling of gravity and magnetic data. Prerequisites: GLY 4450, PHY 3048, PHY 3049, MAC 3311, MAC 3312, MAP 3302. Corequisite: GLY 5457.

GLY 5495 Seminar In Geophysics (2). Detailed investigation of current geophysical techniques, including topics on instrument design. Prerequisite: GLY 5457 or permission of instructor.

GLY 5546 Topics In Stratigraphy (2). Discussion of research projects and/or current literature in stratigraphic correlation as derived from sedimentologic principles and biozonation. Prerequisite: GLY 5346.

GLY 5608 Advanced Paleontology I (2). Discussion of current literature and research projects on evolution, systematics functional morphology, with reports by members of the seminar. Prerequisites: GLY 4650, GLY 5609, or permission of instructor.

GLY 5931 Graduate Seminar (1). Presentation or critical examination of current research problems in geology. A selection of topics is considered each term. Topics may also include individual research in the student's field of investigation. Prerequisite: Graduate standing or permission of instructor.

GLY 5620 Caribbean Stratigraphic Micropaleontology (3). Survey of the stratigraphy of biostratigraphic type-sections described in the Caribbean area. Deep-sea stratigraphy from both piston-cores and Deep-Sea Drilling Project samples. Emphasis is placed on planktonic foraminifera and radiolaria species used as index-species in the equatorial-tropical biozoe nation typified in Cretaceous and Cenozoic Caribbean sediments. Paleobiogeographic and paleoecologic considerations. Considerable time will be devoted to the study and identification of specimens under the microscope. Prerequisite: GLY 4650 or the instructor's permission.

GLY 5793 Caribbean Shallow-Marine Environments (3). Four-week field study of multiple tropical environments as illustrated in the Caribbean. Physico-chemical processes in nearshore arenaceous, argillaceous and calcareous environments. Coral reef morphology, ecology and distribution patterns. Dynamical processes acting on nearshore environments, and their effects on reef growth and distribution. Reef bioerosion. Coastal evolution in response to natural processes. On-site study of some similar emerged environments in the Caribbean islands. Economic importance of tropical shallow-marine environments in world fuel resources. Course includes extensive field work both on land and underwater, and an individual field research project. Qualifications: Open to advanced undergraduate and graduate students in the earth and biological sciences or cognate fields.

GLY 6159 Stratigraphy of the Circum Caribbean Region (4). Detailed lithostratigraphic and biostratigraphic analyses of Caribbean islands, Central America, northern South America and Caribbean basin. Prerequisite: GLY 5609.

GLY 6247 Trace Element and Isotope Geochemistry (3). Principles of trace element and isotope fractionation and radioactive decay, and their application to the interpretation of igneous rocks and the chemical evolution of the earth. Prerequisite: GLY 5208. Corequisite: GLY 6247L.

GLY 6247L Trace Element and Isotope Geochemistry Lab. (1). Mineral separation, Isotope dilution and wet chemical analytical techniques; ICP, INAA, XRF, and mass spectronometry. Prerequisite: GLY 5208. Corequisite: GLY 6247.

GLY 6328 Advanced Igneous Petrology (3). Interpretation of igneous rocks; chemistry and physics of magma generation and crystallization; origin of major igneous rock series with emphasis on tectonic controls. Prerequisite: GLY 5208. Corequisite: GLY 6328L.

GLY 6328L Advanced Igneous Petrology Lab (1). Identification of rocks using microscopic and microprobe techniques. Prerequisite: GLY 5208. Corequisite: GLY 6328.

GLY 6392 Topics In Igneous Petrology and Geochemistry (2). Research seminar in contemporary petrology and geochemistry. Student presentation on thesis research. Prerequisites: GLY 5322, GLY 6247, GLY 6328.

GLY 6417 Caribbean Structural Geology and Tectonics (4). Students will be assigned areas and/or topics to make presentation by these will be introduced and supplemented by lecture material. Prerequisite: GLY 5408

GLY 6447 Advanced Topics In Structural Geology and Tectonics (2). Oral presentation of current research topics in structural geology and the relevant literature. Prerequisites: GLY 5446 or permission of instructor.

GLY 6467 Advanced Geophysics II (4). Rigorous and advanced treatment of application and results of modern investigations in some of the following topics: observational seismology, marine seismology, gravity observation and modeling, magnetic methods and modeling. Prerequisite: GLY 5457 or permission of instructor.

GLY 6480 Physics of the Earth (3). Properties and dynamics of the Earth's interior studied from a physical perspective. Topics include heat flow, fluid flow, earthquake seismology. Prerequisites: and MAC 3313.

GLY 6496 Advanced Topics in Geophysics (2). Discussion of research projects and current literature in geophysics. Prerequisite: GLY 5496.

GLY 6595 Topics in Sedimentology (2). Oral presentation by students of research projects and survey of relevant literature with reports by members of the seminar. Prerequisite: GLY 5546.

GLY 6609 Advanced Paleontology II (4). An in-depth study of a particular topic or a limited number of topics in Paleontology. Prerequisite: GLY 4650 or permission of instructor.

GLY 6652 Advanced Paleontology and Evolutionary Theory (3). Structure, relationship and phylogenetic history of invertebrate and/or vertebrate groups, paleontological materials, methods and principles of evolution. Prerequisite: GLY 4650 or permission of instructor.

GLY 6652L Advanced Paleontology and Evolutionary Theory Lab (1). Study of fossil groups based on fossil collection: speciation and major evolutionary changes. Corequisite: GLY 6652

GLY 6690 Topics in Paleontology (2). Oral presentation and discussion of current research projects and relevant literature, with reports by members of the seminar. Prerequisite: GLY 5608 or permission of instructor.

GLY 6931 Advanced Graduate Seminar (1). Oral presentation and discussion by students of an assigned literature survey, with reports by members of the seminar. Prerequisite: GLY 5931 or permission of the instructor.

GLY 6966 Master's Comprehensive Examination (0). Oral and written examinations on knowledge in general geology and the student's field of concentration. Schedule to be selected in consultation with the Graduate Committee. Prerequisite: Advanced graduate standing.

GLY 6971 Master's Thesis (1-6). Field and/or laboratory research project toward thesis. Selected in consultation with major professor. Prerequisite: Permission of major professor.

MET 4701 Meteorology (3). The earth's atmosphere and its physical properties. General circulation and thermal structure of the atmosphere on a global and local scale. Physics and dynamics of clouds. Weather analysis and forecasting including temperate and tropical areas, with emphasis on the Caribbean and neighboring areas, birthplace of major Atlantic tropical storms. Reading of weather maps, introduction to meteorologic instruments, transmission and plotting of meteorological data. Recommended preparation: AST 2200, GEO 3200, and competence in physics and calculus.

OCE 1001 Introduction to Oceanography (3). OCE 1001L Introduction to Oceanography Lab (1). The oceans, their nature and extent. Water of the oceans, chemical balance. Marine provinces, sediments and their relation to sea life and oceanic circulation, coastal provinces, sediments and their relation to sea life and oceanic circulation, coastal and deep-ocean circulation. Waves, tides, tsunamis. One field trip expected.

OCE 3014 Physical Oceanography (3). The ocean origin, physical properties, salinity, temperature, sound. Radiative properties, heat budget and climatic control. Tides, wind-driven motion-monsoon circulation. El Nino phenomenon. Subsurface water masses. Oceanic circulation and paleoclimates.

OCG 6105 Advanced Marine Geology (3)
OCG 6105L Advanced Marine Geology Lab (1). Application of geophysical and geological data to the interpretation of the earth's crust under the oceans, including the data provided by the Deep-Sea Drilling Project, dredging, piston-coring, gravity magnetism, and seismicity. Special emphasis will be given to the genesis and evolution of the Atlantic and Caribbean margins, and their potential for oil resources. Prerequisite: GLY 4730 or permission of instructor.

OCG 6280 Marine Sedimentary Petrology (3)
OCG 6280L Marine Sedimentary Petrology Lab (1). Analysis of the genesis, distribution pattern, physical and chemical properties of marine sedimentary facies, with emphasis on deep-sea sediments. Topics include deep-sea diagenetic and lithification processes, their geochemical relationship in time and space. Prerequisite: GLY 4555 or permission of instructor.

OCP 5291 Coastal Processes (3)
OCP 5291L Coastal Processes Lab (1). Dynamics of estuarine and near-shore circulation. Advective and diffusive processes. Natural and man-induced supply of particulate matter to the coastal region, and the longshore and offshore dispersal of this matter. Waves, tides, periodic sea level changes and their effects on coastal erosion and sedimentation. Coastal management. Prerequisites: OCE 3014 and EVS 4164 or permission of instructor.

History

Howard Rock, *Associate Professor and Chairperson*
John French, *Assistant Professor*
Howard Kaminsky, *Professor*
Eric Leed, *Associate Professor*
Susan Mernitz, *Assistant Professor*
Brian Peterson, *Associate Professor*
Joyce Peterson, *Associate Professor*
Darden Asbury Pyron, *Associate Professor*
Mark D. Szuchman, *Professor*

Degree: **Bachelor of Arts**

Students interested in teacher certification should contact the College of Education at 554-2721.

Lower Division Preperation
Two semesters of Western Civilization.
To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

If an entering history major has not met a lower division requirement, the equivalent course must be taken at the University, and will be counted as a non-major elective. The equivalent courses are:

EUH 3110	Western Culture and Society, Ancient World to Reformation
EUH 3208	Western Culture and Society, The Modern World

Upper Division Program: (60 semester hours)
History majors may take only six credits of lower division history courses as part of the fulfillment of their major requirements.

HIS 4935	Senior Seminar in History	3

One course in each of the following areas: (The area numbers are indicated in brackets at the end of each course description)

Medieval Europe or Ancient History [1]	3
Modern Europe [2]	3
The United States [3]	3
Latin America, the Caribbean, Asia, or Africa [4]	3
Any five additional History courses	15

Electives to make up the prescribed total number of credit hours required for graduation.	30

Minor in History
Five general History courses (15 semester hours)

Master of Arts in History
The Master's of Arts in history, given in cooperation with Florida Atlantic University requires that candidates have a reading proficiency in one foreign language, a minimum of 30 credit hours of which at least 22-24 hours must be course work, and present a satisfactory thesis which must be defended. Course work must include HIS 6129 (Historical Experience), and three seminars in history (of which no more than two may be in any one field). Courses will be offered each term at both institutions, and both libraries will be accessible to candidates.

Course Descriptions

Definition of Prefixes

AMH—American History; EUH— European History; HIS—General; LAH—Latin American History; WOH—World History.

AMH 2015 Historical Analysis: The American Revolution (3). Exploration of the nature of the Revolution from 1763 through ratification of the Constitution in 1789. Emphasis on primary sources, historical interpretations and the nature and meaning of the Revolution. Written work meets state composition requirement (6,000 words).

AMH 2053 Historical Analysis: Democracy in America (3). The institutions, social order, and mentality of the United States in the 1830s, in reality and in their classic portrayal by Alexis de Tocqueville, Democracy in America. Written work meets state composition requirement (6,000 words). [3]

AMH 3012 American History, 1600-1763 (3). The American social colonial experience from the earliest settlements at Jamestown and Plymouth to the eve of the American Revolution. Particular emphasis will be on religion, social structure, politics, and slavery. [3]

AMH 3100 American History, 1607-1850 (3). A survey of American history from the founding of Virginia to the ante-bellum era. Analysis of colonial America, the American Revolution, the Constitution, and the growth of a new republic. [3]

AMH 3200 American History, 1850 to the Present (3). A survey of American history from before the Civil War to our own day. Analysis of the Civil War, Reconstruction, the Gilded Age, the move toward imperialism, and the problems of the 20th Century. [3]

AMH 3270 Contemporary U.S. History (3). An examination of the major trends, forces and personalities that have shaped the recent American past. [3]

AMH 3317 America and the Movies (3). An examination of social the and cultural history of 20th century America through its movies. [3]

AMH 3331 American Intellectual History I (3). This course will trace the origins and development of the main ideas and intellectual themes of Anglo- American history during the colonial and early national period, 1600-1815. It will stress social ideas and popular concepts, and relate them to the formation of dominant American national characteristics. [3]

AMH 3332 American Intellectual History II (3). This course will emphasize the full flowering of individualistic liberalism in 19th Century American thought, and trace the implications of and reaction against this tradition down to the present. [3]

AMH 3440 The Great American West (3). The course will explore the meaning of the West for both the settlers and modern Americans. Using song, film, novels, art, etc., the course will examine the lives and values of the Indians, mountain men, farmers, ranchers, and cowboys. [3]

AMH 4041 Culture and Society in America (3). An examination of American social and intellectual history from 1600 to the present through the study of the artifacts of material culture produced by that civilization, and the lives of the men and women who used and created them. [3]

AMH 4130 The American Revolution (3). An exploration of the nature of the Revolution from the beginning of the conflict in 1763 through the ratification of the Constitution in 1789. Discussion of the political and economic differences between the colonists and England, along with the meaning the war had to the different classes of Americans. [3].

AMH 4140 Age of Jefferson (3). A survey of Jeffersonian America (1790-1828) with emphasis on the origins of American politics, the emerging American economy, the rise of American nationalism, and Jeffersonian mind. [3]

AMH 4160 The Age of Jackson (3). A survey of Jacksonian America (1828-1850) with emphasis on the growth of political parties, the rise of American industry, the emergence of labor, slavery, and early reform movements. [3]

AMH 4170 Civil War and Reconstruction (3). The rise and sources of militant sectionalism in the United States, the war itself, and the restoration of the nation. [3].

AMH 4231 The Roaring Twenties and the Great Depression (3). A political, economic, social, and intellectual history of the 1920s and the great depression of the 1930s. [3]

AMH 4251 The Great Depression (3). This course deals with the experience of the American people in the Great Depression of the 1930s. It examines causes of the depression, government response, and effectiveness of response, as well as looking at the actual daily experience of people during depression and the changes the depression made in U.S. society. [3]

AMH 4400 Southern History (3). An examination of the main themes and social forces that have shaped the southern experience and the southern intellectual tradition in a distinctive way within the larger historical reality of colonial Anglo- America and the United States. The period covered is from initial exploration and settlement of Sir Walter Raleigh and John Smith to the present. [3]

AMH 4500 United States Labor History (3). A history of the experience of working class people in the United States and of the trade union movement from colonial times to the present. [3]

AMH 4560 History of Women in the United States (3). The changing dimensions of women's lives from the colonial era of U.S. history to the present. The course will examine the changing economic, social, and political position of women as well as the development of feminist movement and organizations. [3]

AMH 4570 Afro-American History (3). Black society in the United States and its relation to the political, economic, social, and cultural history of America. [3]

AMH 4930 Topics in U.S. History (3). Selected topics or themes in U.S. history. The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [3]

EUH 2015 Historical Analysis: Athens, Sparta, Peloponnesian War (3). A study of the Peloponnesian War, in Thucydides' classical history, that aims to introduce the student to the subject-matter of Western history and to the habits of critical thinking about the meanings of thought and action. Written work meets state composition requirement (6,000 words).

EUH 2029 Historical Analysis: Medieval Chivalry (3). A study of the aristocratic ideal of chivalry as a code of behavior, as a legitimation of hegemony, and as a cultural force. Written work meets state composition requirement (6,000 words).

EUH 2069 Historical Analysis: The Russian Revolution (3). A study of the Russian Revolution of 1917: its causes, dynamics, and implications. Written work meets state composition requirement (6,000 words).

EUH 2074 Historical Analysis: De Tocqueville and the French Revolution (3). Analysis of the causes and effects of the French Revolution through the eyes of one of its leading interpreters, Alexis de Tocqueville. Written work meets state composition requirement (6,000 words).

EUH 2235 Historical Analysis: The Romantic Tradition (3). A study of the Romantic tradition of self-fulfillment from Rousseau and Goethe to the present. Alternative paths of self-fulfillment including socialism and elitism. Written work meets state composition requirement (6,000 words).

EUH 3110 Western Culture and Society, Ancient World Reformation (3). An analysis of the social, political, material and cultural forces which shaped the emergence of Western Civilization. Topics include ancient Greece and Rome, medieval society, and the Renaissance.

EUH 3121 Europe in the Earlier Middle Ages (3). Europe from the fall of the Roman Empire in the West (ca.500 A.D.) to the first crusade (1095). The formation of the feudal society, the military upper class, the imperial papacy, the monastic order, the interplay between Christian and worldly ideas. [1]

EUH 3123 Europe in the Later Middle Ages (3). Europe from the Twelfth through the Fifteenth Centuries. The formation of territorial states and an aristocratic order of status: Romanesque and Gothic arts; courtly romance and chivalry, development of subjectivity and individual self- consciousness; heresy, inquisition, and social revolution. [1]

EUH 3142 Renaissance and Reformation (3). A study of the development of humanism in Italy and Protestantism in Germany, and their impact on Europe in the Fourteenth, Fifteenth, and Sixteenth centuries. [2]

EUH 3203 Europe in the 17th Century (3). An examination of the "radical century" which defined many of the values of the modern age: the work ethic, the scientific view of nature, the notion of market society, the modern state, and bourgeois ideology. The course will emphasize the Puritan Revolution in England and the rise of absolute monarchy in France. [2]

EUH 3205 Nineteenth Century Europe 1815-1914 (3). This course will deal with the political, diplomatic, economic, social, and cultural history of Europe from 1815 until 1914. Special attention will be given to the Industrial Revolution. [2]

EUH 3208 Western Culture and Society, The Modern World (3). An analysis of the main currents of Western Civilization from the Reformation to the present.

EUH 3245 European History, 1914-1945 (3). Europe in the era of the two World Wars, with special emphasis on communism and fascism. [2]

EUH 3282 European History, 1945 to Present (3). Europe since the Second World War examined in its political, diplomatic, social, economic, and cultural aspects. [2]

EUH 3400 Greek History (3). The origins of the Greek polis in Mycenaean times, its domination of civilization in the first millenium B.C., its transformation under Alexander and his successors. The political history, culture, values,and social dynamics of Greek civilization. [1]

EUH 3411 Ancient Rome (3). The formation of the Roman republic, its rise to domination in the Mediterranean, its transformation into the Roman Empire,and its final disintegration. The political history, culture, values, social dynamics, and enduring force of the Roman civilization. [1]

EUH 3460 Germany from Charlemagne to Hitler (3). An overview of German history with special emphasis on the development of the National Socialist movement. Political, economic, social, and religious aspects of German history will be covered. [2]

EUH 3570 Russian History (3). An overview of Russian History from the time of tribal Slavs until today. The course will focus especially on the changing conditions of the Russian peasantry and on the unique development of the Russian state. [2]

EUH 3576 The Russian Revolution and the Soviet Union (3). This course deals with Russia since 1917 and focuses particularly on the theory and practice of communism in the Soviet Union. The impact of communism on the lives of the people, whether in politics, economics, or culture, will be examined. [2]

EUH 3601 Medieval Culture (3). Selected topics in the cultural history of Europe from 500 to 1500: epic and knightly romance; Christian theology and spirituality; scholastic philosophy; Romanesque and Gothic arts; the rise of literature in the vernacular; the culture of the layman; and the contribution of women. [1]

EUH 3611 European Cultural and Intellectual History (3). This course will examine the development of the key ideas in European political and social theory, in conceptions of the natural world and of the individual which have come to dominate European culture in the last four hundred years. [2]

EUH 4006 Modern Europe, 1789-Present (3). European history from the French Revolution until today, with special attention to liberalism, nationalism, socialism, communism, and fascism. The course will touch on the main points of the national histories of the various European states, from Britain to Russia. [2]

EUH 4186 King Arthur and His Knights (3). A study of Arthurian romance from the 12th to the 15th Centuries, as the self-image of aristocracy. The following themes will be emphasized: chivalry, adventure, erotic idealism, Christian consecration, and the creation of secular individualism. [1]

EUH 4187 Topics in Medieval European History (3). Selected topics or themes in Medieval history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [1]

EUH 4286 Topics in European History (3). An examination of selected topics or themes in early modern and modern European history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). [2]

EUH 4313 History of Spain (3). A survey of Spanish history from the Reconquista through the Civil War, with particular emphasis on the Golden Age. [2]

EUH 4453 The French Revolution and Napoleon (3). A study of French and European history from 1798 to 1815, with an emphasis on the political development of the Revolution, social groups within France, and the rise of Napoleon. [2]

EUH 4520 England in the 18th Century (3). Exploring one of the greatest eras in English history, this course will cover the growth of the British empire, crown and Parliament, the industrial revolution, social problems and English culture. [2]

EUH 4602 The Enlightenment (3). This course deals with the French Enlightenment of the Eighteenth Century, particularly with Voltaire, Diderot, and Rousseau. Impact of the Scientific and English Revolutions on Enlightenment. [2]

HIS 3001 Introduction to History (3). Approaches to the study of the Western tradition.

HIS 3308 War and Society (3). An examination of the ways societies have organized themselves for external and internal wars. The course will also explore the changing conduct of war, the image of the warrior, and the ways in which military institutions have crystalized class structures.

HIS 3930 Special Topics (3). An examination of specific themes or topics in history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).

HIS 4282 Europe in the Americas: Comparative Colonial Societies (3). A comparative analysis of the colonial experiences of Spanish Latin America and British North America. This course will discuss economic, social, political, religious, and cultural growth, focusing on influences of the mother countries.

HIS 4450 Slavery in the Americas (3). Afro-American slavery as a dominant system in the period 1500-1900. Topics include labor systems, historical demography, family structure, race relations, resistance to slavery and abolition.

HIS 4908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor

HIS 4930 Special Topics (VAR). An examination of specific themes or topics in history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule).

HIS 4935 Senior Seminar in History (3). A seminar to be taken by all history majors, to provide experience in research, writing, and critical analysis.

HIS 5289 Comparative History (3). A study of specific topics in history that cut across regional, national, and chronological lines. The topics will change from semester to semester, and with a change in content, the course may be repeated. (The topic of the course will be announced in the yearly schedule).

HIS 5908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor.

HIS 5910 Advanced Research and Seminar (3). Small group their sessions which will analyze particular subject areas in history, with the consent of the instructor.

HIS 5930 Special Topics (VAR). An examination of specific themes or topics in history. The theme will vary from semester to semester, and with a change in content, the course may be repeated. (The theme will be announced in the yearly schedule).

HIS 6128 The Historical Experience (3). A seminar designed to introduce the beginning graduate student to the technical aspects of the study of history. This course treats the problems involved in the preparation of the Master's thesis.

HIS 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. May be repeated. Prerequisite: Permission of Department.

HIS 6971 Master's Thesis (3). The course is for students preparing their theses. Prerequisite: Successful completion of all graduate requirements and electives.

LAH 2092 Historical Analysis: The Latin Americans (3). An examination of the evolution of symbols of status and power, and of the socio-economic relationships among groups within the various Latin American regions. Written work meets state composition requirement (6,000 words).

LAH 3132 The Formation of Latin America (3). An examination of Latin America in the colonial period, focusing on conquest, Indian relations, the landed estate, urban functions, labor, and socio-economic organization from the 15th through the 18th Centuries. [4]

LAH 3200 Latin America: The National Period (3). Trends and major problems of Latin American nations from independence to the present.

LAH 3450 Central America (3). An overview of Central American history from colonial times to the present, with emphasis on the period after the mid-Eighteenth Century. All five modern nations are dealt with in some detail, while the thematic focus is on social and economic history. Prerequisite: One course in Latin American History or permission of instructor. [4]

LAH 4433 Modern Mexico (3). An examination of the central themes of nation-building in Mexico from 1810 to the present: race, land, political authority, regionalism, dictatorship, and the Mexican Revolution. [4]

LAH 4474 Topics in Caribbean History (3). Selected topics or themes in Caribbean history. The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [4]

LAH 4482 Cuba: 18th - 20th Centuries (3). The socio-economic and political setting in Cuba since the mid-Nineteenth Century.[4]

LAH 4511 Argentina: 18th - 20th Century (3). A survey of the social and political formation of the Argentine nation, starting with the colonial legacy and ending with the contemporary political situation. [4]

LAH 4600 History of Brazil (3). Origins of Portuguese rule and African slavery; crisis of colonialism and transition to independence; coffee, abolition, and the Brazilian Empire; Republican Brazil and the Revolution of 1930; postwar developments. [4]

LAH 4932 Topics in Latin American History (3). Selected topics or themes in Latin American history. The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). [4]

LAH 5305 20th Century Latin American History (3). Advanced analytical studies of socio-economic phenomena in Latin America: race relations, authoritarianism, modernization, migration, capitalism, and the State. [4]

WOH 1001 Historical Analysis: World Civilization (3). Comparative histories of major world civilizations, including China, India, the Moslem Middle East, Africa, Latin America, and the West. Emphasis on cultural characteristics and interactions. Written work meets state composition requirement (6,000 words).

WOH 3280 Women's History (3). A survey of the position of women in the major world civilizations. The course examines the position of women from the stone age to the present, with particular attention to both women's actual function in society and the ideal definition of womanhood in different societies.

WOH 3281 Jewish History to 1750 (3). Jewish history from the First Exile in 586 BCE to 1750. The development of Jewish institutions in exile and as a nation, the development of the Talmud and the medieval experience.

WOH 3282 Modern Jewish History (3). A survey of the major currents of developments in modern Jewish History. The reaction to the Enlightenment, the American experience, the growth of the Eastern European Shtetl, the Holocaust and the Birth of the State of Israel.

WOH 3283 Jewish History (3). A survey of modern Jewish history.

Humanities

Ramon Mendoza, *Professor, Modern Languages, Director of Humanities*
Charles Elkins, *Professor, English, and Vice Provost*
Fernando Gonzalez-Reigosa, *Associate Professor, Psychology*
Kenneth Henley, *Associate Professor, Philosophy*
Joyce Peterson, *Associate Professor, History*
Richard P. Sugg, *Professor, English*
Barbara Watts, *Assistant Professor, Visual Arts*

Degree: **Bachelor of Arts**

The Humanities program offers a structured interdisciplinary curriculum designed to confront the student with values and issues concerning man and society, extending beyond the scope and methodology of natural and social sciences.

The program focuses primarily upon the nature of man and his values, his major concerns in society, and his views of the world. These concerns are, and have been through the ages, the preferred object of thought of philosophers, poets, dramatists, fiction writers, and mystics. Their views, manifested primarily in written texts, have become the reservoir of mankind's most outstanding intellectual achievements. Such texts include the works of painters, musicians, and sculptors, as well as the production of mass media and popular culture, which must now engage the serious student of our century's culture and its future.

The Humanities program, however, will not be merely theoretical. It seeks to develop in the student those skills and attitudes which are more specifically human. These are primarily all skills of verbal and written communication, analytical skills, and open-minded and critical attitudes towards the problems of our changing society. Also, the development of artistic sensitivity and expression, and of all forms of imaginative creativity, will be main targets of the program. Above all, the program hopes to challenge the student to become a decisive factor in raising the cultural level of our society by bringing his or her humanistic approach to bear upon its individuals, institutions, and cultural programs through the mass media. The program will be particularly useful to students who wish to pursue post-graduate degrees requiring a general educational background, such as law school, International Relations, and all the traditional Liberal Arts programs.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Recommended Courses: A basic interdisciplinary survey of Western civilization, including the Ancient, Renaissance, and Modern worlds; foreign language; English composition and literature.

Upper Division Program

1. Five required Humanities courses:

HUM 3211	Ancient Classical Culture and Civilization	3
HUM 3226	Medieval and Renaissance Culture and Civilization[1]	3
or		
HUM 3246	The Enlightenment and the Modern World[1]	
HUM 4910	Humanities Tutorial	2
HUM 4911	Humanities Tutorial II	4
HUM 4920	Humanities Colloquium	3

[1] One of these two courses is required.

2. Five courses chosen from certain disciplines of the contributing departments (English, Modern Languages, Philosophy and Religion, History, and Visual Arts).

These disciplines are:

Art History
History
Literature
Philosophy
Religion

No more than two courses may be from the same discipline in the same department.

3. Three courses chosen from additional Humanities courses; these courses are:

HUM 3302, 3872, and 3891	Perspectives of the Humanities[1]
HUM 3304	Values in Conflict
HUM 3813 and 3941	Applied Humanities[1]
HUM 4391 and 4542	Human Concerns[1]
HUM 4450 and 4491	Cultural Heritages and Cultural Changes[1]
HUM 4406	The Film and the Humanities
HUM 4496	Latin American Civilization
HUM 4701	Study Abroad in the Humanities
HUM 4906	Humanities Independent Study[1]

[1] With instructor's permission, these courses may be repeated for credit.

4. Seven general elective courses. These courses may be outside of the Humanities and its contributing disciplines.

Language Requirement: Students must demonstrate a reading knowledge of a language other than their native tongue equivalent to the end of the third semester of beginning language instruction. This requirement may be satisfied by completing nine hours of language instruction or by passing a competency examination administered by the Department of Modern Languages.

Minor in the Humanities

Required courses:

HUM 3211	Ancient Classical Culture and Civilization	3
HUM 4920	Humanities Colloquium	3

Electives: Four other Humanities courses, including the Classical languages, not crosslisted with courses used to satisfy requirements of the student's major.

Course Descriptions

Definition of Prefixes

HUM—Humanities

GRE 3120 Classical Greek I (5). Emphasis of grammar, and on basic reading and writing skills.

GRE 3121 Classical Greek II (5). Emphasis on grammar, and on basic reading and writing skills. Prerequisite: GRE 3120.

GRE 3200 Intermediate Classical Greek (5). Emphasis on grammar, and on acquiring intermediate reading and writing skills. Prerequisite: GRE 3201.

GRW 3210 Greek Prose Writers (3). Translation into English and grammatical analysis of selected texts of Classical prose writers, such as Plato, Aristotle, Xenophon, Thucydides and Plutarch. Prerequisite: Reading knowledge of Classical Greek or GRE 3200.

HUM 3211 Ancient Classical Culture and Civilization (3). Explores the culture of the ancient Greek and Latin worlds from an interdisciplinary perspective and studies the varied conceptions of the individual, society, and nature.

HUM 3226 Medieval and Renaissance Culture and Civilization (3). Explores the culture of the Middle Ages and the Renaissance from an interdisciplinary perspective and studies the varying conceptions of the individual, society, and nature.

HUM 3246 The Enlightenment and the Modern World (3). Explores the culture and the Enlightenment and the modern world from an interdisciplinary perspective and studies the varying conceptions of the individual society and nature.

HUM 3302, 3872, 3891 Perspectives of the Humanities (3). Addresses topics in the Humanities through specified disciplinary approaches. (With consent of the instructor, this course may be repeated for credit).

HUM 3304 Values in Conflict (3). Philosophical, ethical, and religious foundations of Western civilization and significant challenges its value system has received from critical and revolutionary thought.

HUM 3813, 3941 Applied Humanities (3). Explores the nature, role and impact of the Humanities in society and addresses specific methodological and practical issues to be announced in advance. The requirements of this course may include projects outside the classroom. (With consent of the instructor, this course may be repeated for credit).

HUM 3949 Cooperative Education in Humanities (3). A student of majoring in Humanities may spend one or two semesters fully employed in industry in a capacity relating to the major.

HUM 4391 , 4542 Human Concerns (3). Examines concerns important to the human condition, including varying conceptions of human nature, the relation of the individual to society, the quest for identity, the search for meaning through literature, art and social institutions. (With consent of the instructor, this course may be repeated for credit).

HUM 4450, 4491 Cultural Heritages and Cultural Changes (3). Focuses upon various cultures and their development, including such topics as: cultural evolution and revolution, ethnicity and pluralism, and subcultures and countercultures. (With consent of the instructor, this course may be repeated for credit.)

HUM 4460 The Film and the Humanities (3). Studies the significance of film in Western culture: the language, semiotics and technique of films with the aid of appropriate cinematographical material.

HUM 4701 Study Abroad in the Humanities (1-9). Integrated study painting, architecture, music, drama, dance, and philosophy. Attitudes and beliefs of societies as they are reflected in the arts.

HUM 4910 Humanities Tutorial I (2). The first tutorial on a basic Humanities topic under the direction of a Humanities faculty member. This research initiates a major research paper. Prerequisite: Permission of instructor.

HUM 4911 Humanities Tutorial II (4). The second research tutorial on a Humanities topic. Continues HUM 4910 towards completion of a research paper. Prerequisite: HUM 4910.

HUM 4920 Humanities Interdisciplinary Colloquium (3). Addresses a specific topic in depth from a variety of perspectives. Topics will be announced in advance. (With consent of the instructor, this course may be repeated for credit.)

LAT 3120 Latin I (5). Emphasis on grammar and on acquiring basic reading and writing skills.

LAT 3121 Latin II (5). Emphasis on grammar and on acquiring reading and writing skills. Prerequisite: LAT 3120.

LAT 3200 Intermediate Latin (5). Emphasis on grammar and on acquiring basic reading and writing skills. Prerequisite: LAT 3121.

LAT 3210 Latin Prose Writers (3). Translation into English and grammatical analysis of selected texts of classical prose writers such as Cicero, Caesar and Livy. Prerequisite: Reading knowledge of Latin or LAT 3120.

International Relations

Charles G. MacDonald, *Professor and Chairperson*
Ken I. Boodhoo, *Associate Professor*
Thomas A. Breslin, *Associate Professor*
Peter R. Craumer, *Assistant Professor*
Ralph S. Clem, *Professor*
Nancy E. Erwin, *Assistant Professor*
Farrokh Jhabvala, *Professor*
Antonio Jorge, *Professor*
Susan Waltz, *Assistant Professor*
Gregory B. Wolfe, *Professor*

Degree: **Bachelor of Arts**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Recommended Courses: Economics, foreign languages, geography, history, international relations, introduction to statistics, political science, sociology.

Upper Division Program

International Relations majors must complete

30 semester hours of coursework in the department with a grade of 'C' or better.

Core Requirement: 12 semester hours

GEA 3000	World Regional Geography	3
INR 3003	Foundations of International Relations	3
or		
INR 2001	Introduction to International Relations (with the approval of an advisor)	
INR 3013	Development of International Relations Thought	3
INR 4603	Approaches to International Relations	3

Breadth Requirements: 18 semester hours
At least one course in each of the following:
Area studies (regional courses on Europe, the Caribbean, Latin America, Africa, Asia, or the Soviet Union) . . . . (AS)
Population Studies or Geography . . . (PG)
International Law or Organization . . . . (IL)
Issues and Problems in International Relations . . . . (IP)

Electives: Courses are designed to meet particular professional goals. The student is encouraged to consider a dual major in related fields; to pursue courses in foreign languages and methodology; and to work toward appropriate academic certificates (e.g., Latin American and Caribbean Studies).

Minor In Geography
A student majoring in another academic discipline earns a Minor in Geography by successfully completing approved coursework of 16 semester hours as described below:

GEA 3000	World Regional Geography	3
GEO 3200	Physical Geography	3
GEO 3200L	Physical Geography Lab	1

In addition to the above required courses, students must take a minimum of three other Geography courses, at least one with a GEA prefix, and at least with a GEO prefix.

Minor In International Relations
A student majoring in another academic discipline earns a Minor in International Relations by successfully completing approved coursework of 15 semester hours in the Department of International Relations. This program must include:

INR 3003	Foundations of International Relations	3
or		
INR 2001	Introduction to International Relations (with the approval of an advisor)	
GEA 3000	World Regional Geography	3
or		
an approved course in Geography		

A course in International Law or Organization
Two electives in International Relations

Dual Major and Certificates
Students are encouraged to pursue a dual major or a certificate program to complement the International Relations program. This allows the student to add an important dimension to the major.

Course Descriptions

Definition of Prefixes
CPO—Comparative Politics; GEA—Geography—Regional (Area); GEO—Geography—Systemic; HFT—Hospitality, Food, Tourism; INR—International Relations; POS— Political Science; PUP—Public Policy.

GEA 3000 World Regional Geography (3). A systematic survey of the major regions and countries of the world, with regard to their physical, cultural, and political characteristics. Emphasis upon climate, natural resources, economic development, and population patterns.

GEA 3172 Geography of the Developing World (PG) (3). Examines the geographical factors shaping the differences between more and less-developed countries, and prospects for narrowing these in the future. Stress is laid on the need to utilize efficiently the physical environment and the human barriers to such utilization.

GEA 3326 Population and Geography of the Caribbean (PG)(3). Physical, cultural and political geography of the Caribbean; emphasis on population patterns, growth and ethnicity.

GEA 3400 Population and Geography of Latin America (PG) (3). Introduction to the physical, cultural, and political geography of Latin America. Emphasis on population patterns and problems of population growth, systems of land use and tenure, economic development, natural resources, and agriculture.

GEA 3500 Population and Geography of Europe (PG) (3). Introduction to the physical, cultural, and political geography of Europe emphasizing the evolution of the states and the geographical factors facilitating the integration movement.

GEA 3554 Population and Geography of the Soviet Union (PG) (3). An analysis of the U.S.S.R. in terms of its resources; economic development; and aspects of population change such as migration, urbanization, and nationality groups.

GEA 3600 Population and Geography of Africa (PG) (3). Introduction to the physical, cultural, and political geography of Africa. Emphasis on the evolution of independent states, and economic development.

GEA 3630 Population and Geography of the Middle East (PG) (3). Introduction to the physical, cultural, and political geography of the Middle East. Emphasis on population patterns, natural resources, and economic development.

GEA 3710 Population and Geography of China (PG) (3). Introduction to the physical, social and cultural geography of China. Emphasis on population patterns, problems of population growth, regionalism.

GEO 3471 Political Geography (PG) (3). Emphasis is given to man's organization of space, particularly as it pertains to the nation-state. Factors instrumental to determining the viability of states are included stressing unifying-repelling forces.

GEO 3602 Urban Geography (PG) (3). The study of spatial organization within and among urban settlements. Analysis of both the empirical and theoretical aspects of urbanism are covered, with an emphasis on current urban problems.

GEO 5415 Topics In Social Geography (PG, IP) (3). Topics discussed include geographic aspects of population and ethnicity, with emphasis on sources and analysis of data and pertinent concepts. Prerequisite: GEA 3000 or permission of instructor.

HFT 3700 Tourism and International Affairs (IP) (3). An introduction to basic elements of international tourism; an inquiry into the transnational influence of tourism as affected by its institutional organization, by the leisure traveler, and by the host national; and a review of opportunities for policy-making by the group, the State, and international and global agencies.

INR 2001 Introduction to International Relations (3). Introduction to the interactions among international actors: states, international organizations, and transnational groups. Concepts such as power and national interest will be introduced.

INR 3003 Foundations of International Relations (3). An examination of international political, economic, and social systems. Emphasis is placed on basic approaches to the study of international relations.

INR 3004 Patterns of International Relations (IP) (3). The course deals with the development and practice of key concepts of international relations as seen in the historical perspective of the 19th and 20th centuries. The course is structured so as to emphasize the continuity and coexistence of the several concepts during the 20th century, and to provide an outline of modern diplomatic history.

INR 3013 Development of International Relations Thought (3). The nature and characteristics of international relations from antiquity to the end of the First World War. Examination of the religio-philosophical, socio-economic and political ideas and systems associated with them. Study of select historical occurrences and patterns of social change and their interaction with the dynamics of international relations. Prerequisite: INR 3003.

INR 3031 The Future of the International System (IP) (3). Explores probable and improbable international futures through the use of simulations, gaming, and speculative literature. Focuses upon alternatives to present international arrangements.

INR 3043 Population and Society (IP) (3). Introduction to basic demographic concepts: fertility, mortality, migration, urbanization. Discussion of economic development, modernization and population change. Examination of sources of data and background information including censuses and vital statistics, and their utilization.

INR 3081 Issues and Problems In International Relations (IP) (3). Examines selected world and regional issues and problems. Topics vary according to the instructor.

INR 3214 International Relations of Europe (AS) (3). An examination of the international, social, economic, and political life of contemporary Europe. Emphasis given to international organizations and the trend toward economic and political integration.

INR 3224 International Relations of East Asia (AS) (3). A survey of the patterns of international relations in the post-colonial periods in east and southeast Asia. Political, military, and economic aspects examined.

INR 3226 International Relations of South Asia (AS) (3). A study of South Asia as a regional international system with special emphasis on the period 1945 to the present. Interaction between the regional and world systems. Role of the super- powers.

INR 3232 International Relations of China (AS) (3). An examination of the development of China's international relations in the 20th century. Special attention to the development of institutional mechanisms for diplomacy and to problems of integrating domestic and foreign policies.

INR 3245 International Relations of Latin America (AS) (3). An examination of international, social, economic, and political life of Latin America. Emphasis given to the role of international organizations; regionalism; and the trend toward economic integration.

INR 3246 International Relations of the Caribbean (AS) (3). An examination of the international social, economic, and political life of the Caribbean. Includes English, Spanish, and French speaking regions.

INR 3253 International Relations of Sub-Saharan Africa (AS) (3). An examination of contemporary social, economic, and political life in sub-Saharan Africa in view of historical experiences. Special attention given to regional conflicts and apartheid.

INR 3262 Soviet Foreign Policy (AS) (3). Description and analysis of Soviet Foreign Policy in light of ideology and national security. Specific cases and current issues will be discussed, especially those involving Soviet-American and Sino-Soviet Relations.

INR 3274 International Relations of the Middle East (AS) (3). An examination of the international social, economic, and political life of the Middle East. The role of oil in the region will receive special attention.

INR 3281 International Tourism and Third World Development (IP) (3). An introduction to the impact of tourism on Third World states and the role of the tourist industry in Third World development. Environmental effects will also be examined.

INR 3402 Principles of Public International Law II (IL) (3). A study of public international law principles in selected areas such as treaties; state succession; law of the sea; air and space law; law of international economic institutions; international conflict resolution procedures.

INR 3403 International Law (IL) (3). Introduction to the legal concepts, framework, and institutions which play a role in international relations theory and practice.

INR 3502 International Organizations (IL, IP) (3). The study of international political, economic, and social organizations and their impact upon the relations between nations. Emphasis on the constitution, voting, membership, security and operation of such organizations, and the settling of international disputes through these bodies.

INR 3949 Cooperative Education In Social Sciences (3). A student majoring in one of the Social Sciences(Economics, International Relations, Political Science, Sociology, or Psychology) may spend several semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

INR 4024 Ethnicity and Nationality: World Patterns and Problems (IP) (3). A systematic survey of multinational states and their current political and socio-economic situations. The concept of ethnicity and its correlates. Conceptual bases of ethnic integration, assimilation, and stratification. The macro and micro-scales; country, region, city, neighborhood. The consequences of modernization and economic development.

INR 4033 International Communication (IP) (3). The course will explore language as the medium of national and international communication: the multiple and often conflicting roles of language as unifier and isolator of political and social entities.

INR 4044 World Population Problems (IP) (3). Analysis of problems of population growth, economic development, and food supply. The impact of population growth upon the world political system. The Green Revolution and its implications. Environmental consequences of population growth. Prerequisite: INR 3043.

INR 4054 World Resources and World Order (IP) (3). An examination of the impact of the quantity and distribution of the world's resources upon the relations between nations. The availability of mineral resources and food, in particular, will receive attention; and an assessment will be made of the international economic and political implications deriving therefrom.

INR 4247 Caribbean Regional Relations (AS) (3). An examination of the forces and institutions which contribute to or inhibit cooperation and integration in the Caribbean. Prerequisites: INR 3246, CPO 3323, ECS 4432, or ECS 4433.

INR 4261 Science, Technology and International Relations (IP) (3). A study of the importance and relevance of science and technology to our understanding of international relations. Emphasis will be placed on national scientific policies of major countries, their implication on the international community, and the major national and international agencies, organizations, treaties, and programs.

INR 4283 International Relations, Development, and the Third World (AS, IP) (3). An examination of the impact of the theory and practice of development and the relations between nations, with particular emphasis on the Third World. Attention given to the role of international political and economic organizations in the development process.

INR 4335 Force In International Relations (IP) (3). The role of force in international relations is examined. The use and control of force in theory and practice is analyzed. Special attention is paid to contemporary national security issues.

INR 4404 International Protection of Human Rights (IL, IP) (3). Development of the concern of the international community with the rights of individuals and groups and the institutional mechanisms which have been set up for their protection.

INR 4408 Topics In International Law (IL, IP) (3). An intensive examination of selected topics in international law and relations among nations. Topics will vary according to the interests of the instructor and the students.

INR 4417 International Relations and International Law (IL, IP) (3). World order and international relations. Current trends in the theory and practice of international law. Progressive development of international law through international institutions, in such matters as intervention, use of force, human rights, and the law of the sea.

INR 4603 Approaches to International Relations (3). Analysis and conceptualization of the forces and conditions which influence relations among nations. Emphasis is on the provision of an analytical basis for the study of international relations. Prerequisite: INR 3003 or permission of instructor.

INR 4905 Independent Study (VAR). Directed independent research. Requires prior approval by instructor.

INR 4931 Topics In International Relations (3). Varies according to the instructor.

INR 4949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5607 International Relations and Development (3). An analysis and conceptualization of the process of development as it takes place in the international context. Special attention given to the role of international organizations in promoting development and the manner in which differences in developmental levels conditions international relations.

INR 5906 Independent Study (VAR). Directed independent research. Requires prior approval by instructor.

INR 5935 Topics in International Relations (3). Varies according to the instructor.

INR 6008 Colloquium in International Studies (3). A systemic and International Relations theory supplemented with a consideration of legal, institutional and developmental issues. Prerequisite for MIB students: INR 6603 (World Politics).

INR 6605 Contemporary International System (3). Study of synthetic review of theories of development and approaches to the study of development as a process of social, political, and economic change. Prerequisites: CPO 5035 and ESC 5025.

INR 6975 Thesis (1-6). Registration for students working on their thesis. Prerequisites: All other coursework for the Master's in International Studies.

POS 4692 Law and the Process of Change (IL, IP) (3). An exploration of the role of law and legal institutions in the process of modernization, with particular emphasis on developing countries.

PUP 3206 International Law and the Environment (IL, IP) (3). Introduction to the growing body of international laws on environmental issues, with special emphasis on important cases. Recent attempts to coordinate and regulate activities affecting the global environment, with particular attention to the UN Environmental Agency.

International Studies

Lisandro Perez, *Director, Sociology*
Amitava Dutt, *Associate Director, Economics*
Luis Escovar, *Associate Dean, (ex-officio)*
Interdepartmental Advisory Committee:
Ralph S. Clem, *International Relations*
Antonio Jorge, *International Relations/Economics*
Mark B. Rosenberg, *LACC/Political Science*
Alex Stepick, *Anthropology*
Mark Szuchman, *History*
Suzan Waltz, *International Relations*

Degree: **Master of Arts**

The Master's program in International Studies is an interdisciplinary program designed to prepare students for careers in government, the private sector, or international agencies. The program focuses on the broad issue of socio-economic development and provides students with a sound basis in the politics, the economics, the sociology, and the international aspects of development. The interdisciplinary character of the program ensures that the subject matter is treated as a whole. In addition, with the permission of the Interdepartmental Advisory Committee, students may take their electives in related fields such as business, education, or public administration. Scholarships and assistantships are available.

Admission Requirements: A 3.0 GPA in upper-level work form an accredited institution and a combined score of 1000 on the Graduate Record Examination. Foreign applicants must be eligible for further study in their own country and must demonstrate proficiency in the English language.

Degree Requirements: The Master of Arts in International Studies requires a minimum of 36 semester hours of course work at the graduate level. Students may also have to satisfy prerequisites at the undergraduate level for some courses in the program. Such courses will not be counted toward the 36 hour minimum requirement. (A maximum of six semester hours of graduate coursework may be transferred from other institutions of higher education subject to the approval of the Interdepartmental Advisory Committee).

Core Courses: (15 semester hours)

CPO 5035	Politics of Development	3
ECS 5025	Economic Problems of Emerging Nations	3
INR 5607	International Relations and Development	3
POS 5706	Research Methodology	3
SYP 5447	Sociology of International Development	3

Electives	15

A minimum of five graduate level courses chosen from the departments of Economics, History, International Relations, Political Science, and Sociology/Anthropology. Elective courses may also be taken in other fields with the approval of the Interdepartmental Advisory Committee.

Thesis: (6) The thesis requirement will normally be undertaken after completion of a major portion of the coursework and the approval of a thesis proposal. The thesis must demonstrate an ability to organize existing knowledge, synthesizing the available information from more than one discipline, and focusing that knowledge to illuminate a problem, policy, or theory in International Studies. It must be presented to an Ad Hoc Thesis Committee named by the Interdepartmental Advisory Committee.

Language Requirement: Prior to graduation, all students must demonstrate competency in the use of a modern foreign language. Language courses cannot count for credit in the program.

Liberal Studies

Janat F. Parker, *Associate Professor, Psychology, and Director of Liberal Studies*

The Liberal Studies Program exposes the student to a wide range of courses offered by the College, while granting the opportunity to pursue an individualized program of studies under the Liberal Studies guidelines. These guidelines include six categories of courses: (1) Foundations of Liberal Studies, two courses to be taken as early as possible; (2) Interdisciplinary Colloquia, two courses involving faculty from several departments of the College, and dealing with interdisciplinary topics; (3) Scientific Analysis, two courses to expose the student to the scientific method and its application to problems in biology, chemistry, earth science, environmental science, and physics; (4) Humanistic Analysis, two courses dealing with the analysis of literary and historical texts or works of art and music; (5) Social Analysis, two courses to expose the student to the basic theories and methods of social scientists in the fields of anthropology, economics, international relations, political science, psychology, social-science-oriented history, and sociology; (6) Artistic Creation, one course in studio art or music, creative writing, or theatre to allow the student to experiment with his or her own creativity, and to experience the work of the artist.

Students are free to choose any combination of courses within these guidelines. Under the advisement of the Director of Liberal Studies, the student will be encouraged to pursue an individualized and focused program.

Degree: **Bachelor of Arts**

Lower Division Preparation
Recommended Courses: Arts and Sciences concentration recommended. To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program
Required Courses: (33 semester hours)
Courses offered by any of the units of the College of Arts and Sciences, chosen in accordance with academic guidelines of the Pro-

gram of Liberal Studies, to meet requirements in the four following areas:

Scientific Analysis	6
Humanistic Analysis	6
Social Analysis	6
Artistic Creation	3
Interdisciplinary Colloquia offered by the Liberal Studies Program	6
Foundations of Liberal Studies	6

Electives: The remaining hours will be taken as electives.

Limitations: If the student wishes to obtain a second major concurrently, no more than three courses taken to meet the requirements of the other major may be counted towards the requirements of Liberal Studies. If the student wishes to obtain a minor concurrently, no more than two courses taken to meet the requirements of the minor may be counted towards the requirements of Liberal Studies. No student is allowed to take more than six courses in one discipline.

Course Descriptions

Definition of Prefixes
IDS—Interdisciplinary Studies; SSI—Social Sciences: Interdisciplinary

IDS 3930 Foundations of Liberal Studies (3). This will be a broad synthesis of knowledge and methods in the Arts and Sciences taught from the perspective of different disciplines. Specific topics will be announced in advance.

IDS 3949 Cooperative Education in Liberal Studies (3). A student majoring in Liberal Studies may spend several semesters fully employed in industry in a capacity relating to the major.

IDS 4905 Independent Study (VAR). Cross-disciplinary topics for individual study and research to be chosen by External Degree students in consultation with their faculty advisors.

IDS 4920 Liberal Studies Colloquia (3). Individual sections will study, from an interdisciplinary perspective, issues selected and presented jointly by College faculty. Specific topics will be announced in advance.

IDS 4930 Foundations of Liberal Studies (3). This will be a broad synthesis of knowledge and methods in the Arts and Sciences, taught from the perspective of different disciplines. Specific topics will be announced in advance.

IDS 4949 Cooperative Education in Liberal Studies (3). A student majoring in Liberal Studies may spend one or two semesters fully employed in industry in a capacity relating to the major.

SSI 3240 World Prospects and Issues (3). This course examines, from a multidisciplinary point of view, specific global issues such as food, population, and arms control. The issues discussed may change from one semester to the next.

Linguistics

Virginia Gathercole, *Associate Professor and Director, English*
Lynn M. Berk, *Associate Professor, English*
Isabel Castellanos, *Assistant Professor, Modern Languages*
Tometro Hopkins, *Instructor, English*
John B. Jensen, *Associate Professor, Modern Languages*
Peter A. Machonis, *Assistant Professor, Modern Languages*

Degree: **Master of Arts**

Admission Requirements: Applicants must meet the University's graduate general admissions requirements; a GRE score of 1000 on the verbal and quantitative sections or an undergraduate GPA of 3.0 will be required. In addition, non-native speakers of English must submit a TOEFL score of 600.

Degree Requirements:
The Master of Arts in Linguistics requires 36 graduate hours in Linguistics, distributed as follows:

1. Required Courses: (21 semester hours)

LIN 5045	Introduction to Linguistics	3
LIN 5382	English Syntax	3
LIN 5206	Phonetics	3
LIN 6222	General Phonology (Prerequisite: LIN 5206)	3
LIN 6342	Advanced Syntax (Prerequisite: LIN 5341)	3
LIN 6805	Semantics (Prerequisite: LIN 6342)	3
LIN 5146	Historical and Comparative Linguistics[1] (Prerequisite: LIN 5206)	3
or		
LIN 5107	History of the English Language	
or		
FRE 5840	History of the French Language	
or		
SPN 5840	History of the Spanish Language	

2. The remaining hours must be selected from any graduate Linguistics offerings, including courses in the following areas:

Acoustic Phonetics
General Morphology and Syntax
Dialectology
Sociolinguistics
Psychology of Language
Language Acquisition
Second Language Acquisition
Language Contact
Studies in Bilingualism
Applied Linguistics
Error Analysis
Research Methods in Linguistics
Structure of a Non-Indo-European Language
Special Topics in Linguistics
Seminar (various topics)
Thesis (maximum of six hours)

Linguistic courses are taught in the Departments of English and Modern Languages. See those sections for specific course descriptions.

Foreign Language Requirement: Each student will be required to take a minimum of five semester hours of formal study of a foreign language not already known by the student or of Middle or Old English. The language to be studied will be decided on in consultation with the student's advisor.

Examination Requirement: Students will be required to take a written comprehensive exam in Linguistics.

Thesis/Non-Thesis Options: Students may elect to follow a thesis or a non-thesis option. Those electing to write a thesis will take six hours credit in thesis research as part of their required 36 hours. When completed, the thesis will be defended orally before a committee made up of three faculty members, including the thesis director. Those electing to follow the non-thesis option will take all 36 hours in non-thesis courses.

Mathematics

Dev K. Roy, *Associate Professor and Chairperson*
Gerardo Aladro, *Assistant Professor*
Maria Cuervo, *Visiting Instructor*
Domitila Fox, *Instructor*
Susan Gorman, *Instructor*
Peter Holden, *Assistant Professor*
Steven M. Hudson, *Assistant Professor*
Basil C. Krikeles, *Assistant Professor*
Mark Leckband, *Assistant Professor*
Diana McCoy, *Instructor*
Richard Nadel, *Instructor*
Thanases Pheidas, *Assistant Professor*
Taje Ramsamujh, *Assistant Professor*
David Ritter, *Associate Professor*
Micheal Rosenthal, *Instructor*
Richard L. Rubin, *Associate Professor*
Anthony C. Shershin, *Associate Professor*
Minna Shore, *Instructor*
James F. Slifker, *Associate Professor*
Willie E. Williams, *Associate Professor*
John Zweibel, *Assistant Professor*

Mathematical Sciences

Degree: **Bachelor of Science**

Lower Division Preparation
To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Required Courses: Calculus including multivariable calculus; introductory course in computer

programming; linear algebra; differential equations.

Remarks: If an entering major student has not met a lower division requirement, the equivalent course must be taken at the University, and will be counted as a non-major elective. The equivalent courses are MAC 3311, MAC 3312, MAC 3313 (Calculus); CGS 3420 (FORTRAN) or COP 3210 (PASCAL); MAS 3105 (Linear Algebra); and MAP 3302 (Differential Equations).

Upper Division Program

Required Courses

COP 3400	Assembly Language Programming	3
COP 3212	Intermediate Programming	3
MAD 3104	Discrete Mathematics	3
MAD 3401	Numerical Analysis	3
MAD 3512	Introduction to the Theory of Algorithms	3
MAP 4401	Advanced Differential Equations	3
STA 3163-4	Statistical Methods I and II	3-3

In addition, two courses from the following list:

COP 3530	Data Structures	3
MAA 4402	Complex Variables	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
MHF 4302	Mathematical Logic	3
STA 5446	Probability Theory	3

Electives: The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematical Sciences major: MAC 3233, STA 3013, STA 3122-23, STA 3132, and QMB 3150 (College of Business Administration).

Minor in Mathematical Sciences

Required Courses: MAC 3311-2-3. Calculus I,II,III (or equivalent).

Four courses from those approved for the Mathematical Sciences Major program. MAP 3302 and MAS 3105 may be included among these four courses. A grade of 'C' or higher is necessary for the minor.

Remarks: No mathematical sciences courses (Computer Science, Mathematics, or Statistics) can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a mathematical science course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Master of Science in Mathematical Sciences

Admission: The following are in addition to the University's graduate admission requirements

1. Bachelor's degree in mathematics, applied mathematics or mathematical sciences from an accredited university or college.
2. A 'B' average or higher in upper division mathematics courses.
3. Graduate Record Examination taken within the past five years, with at least 650 on the quantitative portion and 500 on each of the other two parts.
4. Three letters of recommendation concerning the candidate's achievement and potential, from persons familiar with the candidate's previous academic performance.
5. Approval of the Graduate Committee.

Core Courses

The student must choose three courses form each of the following lists:

List A:

MAA 5616	Introduction to Real Analysis	3
MAP 5236	Mathematical Techniques of Operations Research	3
MAS 5215	Number Theory	3
STA 5446	Probability Theory	3
STA 6807	Queuing and Statistical Models	3

List B:

MAD 5405	Numerical Methods	3
MAP 5407	Methods of Applied Analysis	3
MAS 5415	Applied Linear Algebra	3
COT 5420	Theory of Computation I	3
COT 6400	Analysis of Algorithms	3

Electives: (6 semester hours)

The student must choose six hours of graduate level coursework in computer science, economics, engineering, mathematics, physics or statistics, with the prior approval of the Mathematics Graduate Committee.

Master's Project

The student will prepare an expository paper under the direction of a faculty member, who will assign the grade. Successful completion of the master's project requires a grade of 'B' or higher, as well as approval of a committee consisting of three mathematics faculty (including the director)

Remarks: The coursework must be completed with a 'B' average or higher and a grade of 'C' or higher in each course. A maximum of two courses may be transferred into the program from outside the University, subject to the approval of the Graduate Committee.

Mathematics

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Required Courses: Calculus including multivariable calculus; introductory course in computer programming; linear algebra; differential equations.

Remarks: If an entering mathematics major student has not met a lower division requirement, the equivalent course must be taken at the University, and will be counted as a non-major elective. The equivalent courses are: MAC 3311-MAC 3312-MAC 3313 (Calculus); CGS 3420 (FORTRAN) or COP 3210 (PASCAL); MAS 3105 (Linear Algebra); and MAP 3302 (Differential Equations).

Upper Division Program

Required Courses

MAA 3200	Introduction to Analysis	3
MAA 4211	Advanced Calculus	3
MAS 4301	Algebraic Structures	3
STA 3321	Mathematical Statistics I	3

In addition, three courses from each of the following lists.

List 1

MAD 4203	Introduction to Combinatorics	3
MAA 4402	Complex Variables	3
MTG 3212	College Geometry	3
MAS 5215	Number Theory	3
MAA 4212	Topics in Advanced Calculus	3
MAS 4302	Topics in Algebraic Structures	3
MTG 4302	Topology	3

List 2

MAP 4401	Advanced Differential Equations	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
STA 3322	Mathematical Statistics II	3
MAD 3401	Numerical Analysis	3
MHF 4302	Mathematical Logic	3

Electives: The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 3233, STA 3013, STA 3122-23, STA 3132, and QMB 3150 (College of Business Administration).

Minor in Mathematics

Required Courses: MAC 3311-2-3 Calculus I-I-III (or equivalent).

Four courses from those approved for the Mathematics Major program. MAP 3302 and MAS 3105 may be included among these four courses. A grade of 'C' or higher in each of these courses is necessary for the minor.

Remarks: No mathematical sciences courses

(Computer Science, Mathematics, Statistics)can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a mathematical sciences course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Course Descriptions

Definition of Prefixes

MAA—Mathematics, Analysis; MAC—Mathematics, Calculus and Pre—Calculus; MAD—Mathematics, Discrete; MAP—Mathematics, Applied; MAS—Mathematics, Algebraic Structures; MAT—Mathematics, General; MGF—Mathematics, General and Finite; MHF—Mathematics, History and Foundations; MTG—Mathematics, Topology and Geometry.

MAA 3200 Introduction to Analysis (3). Topics include: naive set theory, functions, cardinality, sequences of real numbers and limits. Emphasis on formal proofs. Prerequisite: MAC 3313.

MAA 4211 Advanced Calculus (3). An intense study of the foundations of calculus. Topics may include: the real number system, continuity, differentiation, Riemann Stieltjes integration, and series of functions. *Note:* The student must complete MAA 3200 before attempting this course. Prerequisites: MAC 3313, MAS 3105 and MAA 3200.

MAA 4212 Topics In Advanced Calculus (3). A sequel to MAA 4211. Topics may include: theory of integration; analysis in several variables; and Fourier series. Prerequisite: MAA 4211.

MAA 4402 Complex Variables (3). An introduction to complex variables, beginning with the algebra and geometry of the complex number system. Topics include: complex functions; analytic functions; Cauchy's theorem and its consequences; Taylor and Laurent series; residue calculus; evaluation of real integrals and summation of series; conformal mapping. Prerequisites: MAC 3313, and MAP 3302 or MAA 4211.

MAA 5616 Introduction to Real Analysis (3). Lebesgue Measure and Integral with applications to Integral Transforms. Prerequisite: MAS 3105, MAA 4211, MAP 4401 or MAA 4212.

MAC 2132 Pre-calculus Mathematics (3). Topics to be covered include: functions, exponential and logarithmic functions, trigonometry and the basics of analytic geometry. Prerequisite: Two years of high school algebra.

MAC 3233 Calculus For Business (3). A one semester introduction to the basic notions of calculus. Specific topics include: Differential Calculus using polynomial, exponential and logarithmic functions, and its application to optimization; integral calculus with area and probability applications. Prerequisite: MAC 2132 or working knowledge of algebra.

MAC 3311-MAC 3312 Calculus I and II (3-5). An introduction to basic concepts, computations and applications in calculus. The first course deals with basic concepts, techniques and applications of the derivative, and an introduction to the integral. The second course deals with integration techniques and applications of the integral, infinite series, and Taylor series. Prerequisite: Trigonometry or MAC 2132.

MAC 3313 Multivariable Calculus (3). This course deals with the differential and integral calculus of real valued multivariable functions. The topics include: directional and partial derivatives, gradients, and their applications; differential calculus of vector valued functions; multiple, iterated, line, and surface integrals. Prerequisite: MAC 3312 or equivalent.

MAD 3104 Discrete Mathematics (3). Sets, functions, relations, permutations, and combinations, propositional logic, matrix algebra, graphs and trees, Boolean algebra, switching circuits. Prerequisites: COP 3210 or CGS 3420 and MAC 3311.

MAD 3305 Graph Theory (3). An introduction to the study of graphs. Topics include the following: paths and circuits, connectedness, trees, shortest paths, networks, planar graphs, the coloring of graphs, and directed graphs. Applications of graphs to computer science will be discussed. Prerequisites: COP 3210 or CGS 3420 and either MAS 3105 or MAD 3104.

MAD 3401 Numerical Analysis (3). Basic ideas and techniques of numerical analysis. Topics include: finite differences, interpolation, solution of equations, numerical integration and differentiation, applications, introduction to applied linear algebra. This course will make extensive laboratory use of the computer facility. Prerequisites: COP 3210 or CGS 3420 and MAC 3312.

MAD 3512 Theory of Algorithms (3). Strings, formal languages, finite state machines, Turing machines, primitive recursive and recursive functions, recursive unsolvability. Prerequisite: MAD 3104.

MAD 4203 Introduction to Combinatorics (3). A survey of the basic techniques of combinatorial mathematics. Topics will include the Pigeonhole Principle, Binomial Coefficients, Inclusion-Exclusion, Recurrence Relations, and Generating Functions. Prerequisites: MAC 3313 or both MAC 3312 and MAD 3104.

MAD 5405 Numerical Methods (3). Advanced ideas and techniques of numerical analysis for digital computation. Topics include: linear and non-linear systems, ordinary differential equations, continuous system modeling techniques, and languages. Prerequisites: MAS 3105 and MAP 3302.

MAP 3103 Mathematical Modeling and Applications (3). A course to provide an understanding of the use of mathematical models in the description of the real world. Basic principles in the philosophy of formal model building as well as specific models will be considered. Prerequisites: MAS 3105 and either MAC 3313 or MAP 3302.

MAP 3104 Topics In Mathematical Modeling (3). A sequel to MAP 3103. In-depth study of techniques listed for MAP 3103. Prerequisite: MAP 3103.

MAP 3302 Differential Equations (3). An introduction to differential equations and their applications, based upon a knowledge of calculus. Topics to include: initial value problems of the first order, numerical solutions, systems of differential equations, linear differential equations, Laplace transforms, series solutions. Prerequisite: MAC 3312.

MAP 4401 Advanced Differential Equations (3). A second course in differential equations. Topics may include: Bessel functions and other special functions arising from classical differential equations, Sturm-Liouville problems, partial differential equations, transform techniques. Prerequisites: MAP 3302 and MAC 3313.

MAP 5236 Mathematical Techniques of Operations Research (03). This course surveys the mathematical methods used in operations research. Topics will be chosen from linear programming, dynamic programming, integer programming, network analysis, classical optimization techniques, and applications such as inventory theory. Prerequisite: MAP 5117 and MAS 3105 and either CGS 3420 or COP 3210.

MAP 5407 Methods of Applied Analysis (3). Convergence, fixed point theorems, application to finding roots of equations, normed function spaces, linear operators, applications to numerical integration, differential and integral equations. Prerequisites: MAA 4211, MAP 3302, and MAS 3105.

MAS 3105 Linear Algebra (3). An introduction to the topics in linear algebra most often used in applications. Topics include: matrices and their applications; simultaneous linear equations and elementary operations; linear dependence; vector spaces; rank and inverses; inner products and 'best' approximations; numerical solutions of simultaneous linear equations; eigenvalues and eigenvectors; iterative methods for calculating eigenvalues; and systems of linear equations. Prerequisite: MAC 3312.

MAS 4301 Algebraic Structures (3). An introduction to abstract mathematical structures of modern algebra. Fundamental concepts of groups, rings, and fields will be studied. *Note:* the student must complete MAA 3200 before attempting this course. Prerequisites: MAS 3105 and MAA 3200.

MAS 4302 Topics In Algebraic Structures (3). A sequel to Algebraic Structures. Topics may include: a continuation of the study of groups, rings and/or fields; polynomial domains; Euclidean domains; and Galois theory. Prerequisite: MAS 4301.

MAS 5145 Applied Linear Algebra (3). Concepts of finite dimensional vector spaces. Theorems that have infinite dimensional analogues and those with important applications are emphasized. Prerequisites: MAS 3105 and MAA 3200.

MAS 5215 Number Theory (3). Topics to be discussed are selected from the following: congruences, Diophantine equations, distribution of primes, primitive roots, quadratic reciprocity, and classical theorems of number theory.

MAT 2949 Cooperative Education In Mathematical Sciences (3). One semester of full-time supervised work in an outside organization taking part in the University Co-op program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus I and COP 3210.

MAT 3905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

MAT 3930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 3949 Cooperative Education In Mathematical Sciences (3). One semester of full-time supervised work in an outside organization taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus II and COP 3522 or COP 3212.

MAT 4905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

MAT 4930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 4943 Mathematical Sciences Internship (VAR). A special program to encourage students to get on-the-job experience in comiputer sciences, statistics, or mathematics in an industrial enterprise, governmental agency or other organization. Requirements: minimum grade of 'B' or higher in all courses in the major area, and approval by Departmental Internship Committee. Application is required at least one term in advance of registration for this course.

MAT 4949 Cooperative Education In Mathematical Sciences (3). One semester of full-time supervised work in an outside organization taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus II, a statistics course, and COP 3120.

MAT 5907 Independent Study (VAR). Individual conferences, assigned reading, and reports on independent investigations.

MGF 1202 Finite Mathematics (3). Study of concepts and applications involving finite mathematical processes such as sets, combinatorial techniques, formal logic, discrete probability, linear systems, matrices, linear programming. Prerequisite: Working knowledge of high school algebra.

MHF 4302 Mathematical Logic (3). A study of formal logical systems and their applications to the foundations of mathematics. Topics to be selected from the following: definition of mathematical proofs; set theory; analysis formalized with the predicate calculus; theorem of Godel and Church; recursive function theory; and idealized computers. Prerequisite: MAA 3200 or MAD 3512.

MTG 3212 College Geometry (3). A study of the basic structure of Euclidean geometry together with topics from advanced Euclidean geometry and non-Euclidean geometry. Prerequisite: High school geometry.

MTG 4302 Topology (3). An introductory course in topology requiring a prerequisite knowledge of calculus. Topics to be discussed will be selected from the following: topological spaces, metric spaces, continuity, completeness, compactness, separation axioms, products spaces, subspaces, convergence, and homotopy theory. Prerequisites: MAC 3313, MAS 3105, and MAA 3200.

STA 4603-STA 4604 Mathematical Techniques of Operations Research I and II (3-3). An introduction to those topics in mathematics associated with studies in operations research. Topics include the following: linear programming and related topics, dynamic programming, queuing theory, computer simulation, network analysis, inventory theory, decision theory, integer programming. Prerequisites: MAS 3105 and either STA 3033 or STA 3322.

Modern Languages

Reinaldo Sanchez, *Associate Professor and Chairperson*
Irmenia Aragon, *Instructor, (North Miami Campus)*
Isabel Castellanos, *Assistant Professor*
Rodolfo Cortina, *Associate Professor*
James O. Crosby, *Professor*
Leonel A. de la Cuesta, *Assistant Professor*
Elena de Jongh, *Assistant Professor*
Yvonne Guers-Villate, *Professor*
John B. Jensen, *Associate Professor*
Peter A. Machonis, *Assistant Professor*
Ramon Mendoza, *Professor (North Miami Campus)*
Ana Roca, *Assistant Professor*
Andree Steyman, *Instructor*
Marcelle Welch, *Assistant Professor*
Florence Yudin, *Professor*
Maida Watson Espener, *Associate Professor*

Degree: **Bachelor of Arts**

Lower Division Preparation
Required Courses: Eighteen semester hours of elementary and intermediate foreign language or equivalent proficiency. If these courses are not completed prior to entry to the University, they will be required as part of the upper division program as non-major electives.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)
Required Courses

Foreign Language	**30 semester hours**
Electives	**30 semester hours**

Students in the Teacher Preparation Program carry two majors: Modern Language and Modern Language Education and must request admission to both programs. (Students interested in teacher certification should contact the College of Education at 554-2721.)

Requirements For All Modern Language Majors
All majors must have a designated faculty advisor, and all are required to take 30 semester hours in the Department of Modern Languages, with a grade of 'C' or higher.

Requirements For Spanish Majors
To undertake a major in Spanish, a student must demonstrate minimum proficiency in the language. This may be done by a written examination administered by the Department, or by completing SPN 3301 (Non-native speakers of Spanish) or SPN 3341 (Native speakaaers). SPN 3302 must be part of the 30 credit hours of upper division work taken (unless the student is exempted by examination), and credit hours must be distributed according to one of the following plans:

	A	B	C
SPN 3302[1]	3	3	3
Literature courses	9	9	6
Linguistic courses	9	6	9
Culture courses	—	3	3
Departmental electives	9	9	9

[1] Unless exempted by examination, in which case the student has three additional hours of electives.

Introduction to General Linguistics (LIN 3010 or equivalent) must be taken before other linguistics offerings; otherwise, there is no prescribed sequence of courses for the major.

Requirements For French Majors
The requirements for a major in French are three or four literature courses; one civilization course; one French linguistics course. The remaining credits should be taken in language courses, such as FRE 3410, FRE 3420, FRE

3421, FRE 3780, FRT 3800, FOT 3810 unless the student can demonstrate proficiency in these areas. A student is also generally expected to take an introductory course to literature such as FRW 3200 before registering for upper level literature courses.

Requirements For Other Language Majors
A major in a language other than Spanish or French may take only 21 credits in the major target language, but completion of at least two semesters of a second foreign language is recommended. There is no fixed sequence of courses required, and a student may enroll in any course offered for majors, provided he or she meets the course prerequisites.

Minor in French Language and Culture
A student majoring in another discipline may earn an academic minor in French Language and Culture by taking 1) twelve semester hours of course work in French language FRE 3410, FRE 3420/3421, FRE 3780; 2) three semester hours in French Civilization and Culture FRE 3500 or FRE 4501; 3) three semester hours of restricted electives courses in French linguistics, French Translation Skills or Introduction to Literature, FRW 3200.

Minor in Portuguese
A student majoring in another discipline may earn an academic minor in Portuguese by taking 12 semester hours of course work in the language at the level of POR 3420 or above, and six additional hours in Portuguese or in approved courses in a related discipline, such as linguistics or the civilization of Portuguese-speaking peoples.

Minor in General Translation Studies
In order to obtain an academic minor in General Translation Studies, a student takes 12 semester hours in translation/interpretation courses (FOT, FRT, or SPT prefix), with grades of B or better, and nine additional hours in courses of immediate relevance to the program, to be approved by the Director of the program. Normally these will be selected from among offerings in Political Science, Economics, International Relations, Sociology, Anthropology, Computer Science or Modern Languages. At least two of them should be taken outside of Modern Languages. Courses in basic and intermediate instruction shall not be counted for the minor.

Minor in Spanish Language and Culture
Required Credits for Minor: 15 credits of Core Courses and three credits of electives. Total: 18 semester hours.

Core Courses

SPN 3401	Advanced Spanish Conversation (non-natives)[1]	3
SPN 3301	Review Grammar/ Writing I (non-natives)[2]	3
or		
SPN 3341	Advanced Spanish for Native Speakers[2]	
SPN 3302	Review Grammar and Writing II	3
SPN 3820	Dialectology	3
SPN 4500	Spanish Culture	3

Elective Courses: One 3-credit course selected from among the following[3]

SPN 3780	Phonetics[4]	3
SPW 3930	Special Topics	3
SPT 3800	Introduction to Translation Skills	3
SPN 3013	Language Skills for Professional Personnel	3
SPN 3440	Spanish for Business Composition	3
SPN 3520	Spanish American Culture	3

[1] Native speakers will take SPN 3520 Spanish American Culture or SPN 4501 Topics in Civilization and Culture instead of Advanced Spanish Conversation.

[2] Can be substituted for another course in Translation Skills, Linguistic or Spanish Literature, with permission of Spanish advisors only.

[3] Or another advanced course in the Department with the approval of the students' faculty advisor.

[4] Can be replaced by SPN 4790 (Contrastive Phonology).

Basic Language Instruction

The department offers three-semester sequences of instruction in beginning and intermediate Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Portuguese, Spanish, Russian, and beginning instruction in other languages.

The courses in basic language instruction are designed primarily for persons wishing to acquire conversational ability in a foreign language; but they provide training in all four language skills listening, speaking, reading, and writing. Students are advised to consult the Departmental course listing for specific sections.

Master of Arts in Hispanic Studies
To be admitted into the Master's degree program, a student must:

1. Hold a Bachelor's degree in Modern Languages, Linguistics or one of the Social Sciences as related to the Hispanic world from an accredited university or college, or its equivalent;
2. Have a 3.0 GPA or higher during the last two years of the student's undergraduate program and a combined score (quantitative and verbal) of 1,000 or higher on the GRE. Students who have not taken the GRE may enroll in graduate courses in the cooperating departments; however, admission to the graduate program is conditional upon taking and receiving a score of 1,000 on the GRE within six months of the beginning of study;
3. Have the ability to speak both Spanish and English with near-native fluency;
4. Submit two letters of recommendation, preferably from persons in the academic community who are in a position to comment on the applicant's suitability for graduate work;
5. Receive approval of the departmental graduate committee. Students with deficiencies will be advised to complete certain course work before beginning graduate work.

Degree Requirements
The Master's degree program consists of 33 semester hours of graduate level work. A maximum of six credits of graduate course work may be transferred into the program from other institutions, subject to the approval of the departmental graduate committee. Six core courses and three elective courses are required at the 5000-and 6000-level.

Core Courses:

LIN 5934	Special Topics in Linguistics	3
FOT 5805	Translation and Interpretation Arts	3
SPN 6505	Spanish Culture	3
SPN 5525	Spanish American Culture	3
SPN 6535	The Hispanic Presence in the United States	3

One course at the graduate level on Latin American sociology, anthropology, political science, or history, to be taken outside of the department.

The following are examples of courses that will satisfy this requirement. Each semester the department prepares a list of appropriate courses from among the offerings of the cooperating departments, which should be consulted prior to registration.

SOC 5338	Sociology of International Development	3
CPO 5035	The Politics of Development	3
HIS 5910	Urbanism in Latin America	3
ECS 5005	Comparative Economic Systems	3
ECS 5025	Economic Problems of Emerging Nations	3
ECS 5405	Economics of Latin America	3
CYP 6055	Theories and Research in Acculturation and Multiculturalism	3
CYP 6076	Psychology of Crosscultural Sensitization in a Multicultural Context	3
DEP 6145	Culture and Childhood	3
DEP 6450	Culture and Aging	3

Electives: A student must take at least nine graduate credits of electives from courses offered by the department, such as French or Spanish linguistics, literature and translation/interpretation, or from those offered by the departments of History, Political Sciences, Sociology/Anthropology, Economics, and Psychology.

Third Language: Students will be required to speak either French, Portuguese, or Haitian Creole at a level of general communication. Students who do not meet this requirement upon admission must begin their study of the third language in their first semester of study.

Graduation Requirements: To receive the Master's degree in Hispanic Studies, students must complete all the course work with a 3.0 GPA or higher, and must receive at least a 'B' in each of the core courses. After having completed 27 graduate credits (core and elective courses), students will have the option of writing a thesis (equivalent to six credits) or taking two courses or more and submitting a research paper. The thesis will be presented to an ad hoc committee chosen by the student and his or her advisor.

Course Descriptions

Definition of Prefixes

ARA—Arabic Language; CHI—Chinese Language; FOL—Foreign Languages; FOT—Foreign Languages in Translation; FOW—Foreign Languages, Comparative Literature; FRE—French Language; FRT—French Translation; FRW—French Literature (Writings); GER—German Language; GET—German Translation; HBR—Hebrew; ITA—Italian Language; ITT—Italian Translation; JPN—Japanese Language; LIN—Linguistics; POR—Portuguese Language; POW—Portuguese Literature (Writings); PRT—Portuguese Translation; RUS—Russian Language; SPN—Spanish Language; SPT—Spanish Translation; SPW—Spanish Literature (Writings).

(See English listing for additional Linguistics courses.) Application of basic language skills.

ARA 3130 Arabic I (5). Provides training in the acquisition and application of basic language skills.

ARA 3131 Arabic II (5). Provides training in the acquisition and application of basic language skills.

ARA 3210 Intermediate Arabic (5). Provides intermediate training in the acquisition and application of basic language skills.

CHI 3130 Chinese I (5). Provides training in the acquisition and application of basic language skills.

CHI 3131 Chinese II (5). Provides training in the acquisition and application of basic language skills.

CHI 3210 Intermediate Chinese (5). Provides intermediate training in the acquisition and application of basic language skills.

FOL 3000 Elementary Foreign Language (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. For languages not often taught. This course is not part of a series. No prerequisites.

FOL 3013 Language Skills for Professional Personnel (3). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FOL 3732 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 3905 Independent Study (3). Project, field experience, readings, or apprenticeship.

FOL 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and teacher.

FOL 3949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

FOL 3955 Foreign Study (12). Intermediate level. One semester full-time credit in foreign residence and study. Individual cases will be evaluated for approval.

FOL 4905 Independent Study (1-3). Project, field experience, readings, or research.

FOL 4930 Special Topics (3). Independent readings, research, or project.

FOL 4935 Senior Seminar (3). Topics and approach to be determined by students and instructor.

FOL 4949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts may spend one or two semesters fully employed in industry or government in a capacity related to the major. Prerequisite: Permission of Cooperative Education Program and major department.

FOL 4958 Foreign Study: Advanced Language Literature (12). Full-semester credit for foreign residence and study/work. (Approval of Department required).

FOL 5735 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 5906 Independent Study (VAR). Project, field experience, readings, or research.

FOT 3120 Literature in Translation (3). Masterpieces of French literature in English. Comparative use of the original text. Discussion and interpretation.

FOT 3800 Translation/Interpretation Skills (3). Emphasis on basic principles and practice application.

FOT 3810 Creative Writing/Translation (3). Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.

FOT 4130 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by student and instructor.

FOT 4801 Professional Translation/Interpretation (3). Techniques and resources for professional translation and interpretation. Prerequisite: FOT 3800.

FOT 5125 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

FOT 5805 Translation/Interpretation Arts (3). The language barrier and translation and interpretation. Types, modes, and quality of T/I: philological, linguistic, and socio-linguistic theories. History of T/I from Rome to date. The impact of T/I on Inter-American developments. Prerequisite: Graduate standing or permission of instructor.

FOW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

FOW 3540 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 3580 Intellectual History (3). The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.

FOW 3582 Literature of Reform (3). The consciousness of change in verbal art.

FOW 3584 Literature of Repression (3). The consciousness of constraints, their adoption and/or rejection in verbal art.

FOW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

FOW 4790 The Literary Generation (3). The real and apparent shared ideals of an artistic generation, its influence and range.

FOW 4810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

FOW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 5545 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 5587 Comparative Studies (3). Crossover and distinctiveness in a multi-language problem, period, or aesthetic.

FOW 5934 Special Topics in Language/ Literature (3). Content and objectives to be determined by students and teacher.

FOW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

FRE 1120 Basic French I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral French and on acquiring basic language skills.

FRE 1121 Basic French II (5). Emphasis on oral French and on acquiring basic language skills. This course completes the lower-division language requirement.

FRE 3000 Elementary French (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

FRE 3013 Language Skills for Professional Personnel (VAR). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FRE 3120 French I (5). Provides training in the acquisition and application of basic language skills.

FRE 3121 French II (5). Provides training in the acquisition and application of basic language skills.

FRE 3200 Intermediate French (5). Provides intermediate training in the acquisition and application of basic language skills.

FRE 3240 Intermediate French Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: FRE 1121 or equivalent.

FRE 3270 Foreign Study (12). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

FRE 3410 Advanced French Conversation (3). To develop oral proficiency skills and a greater awareness of French culture.

FRE 3415 Communication Arts (3). Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.

FRE 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

FRE 3421 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and composition.

FRE 3440 Business French (3). Introduces the minor and non-major to the culture, economy, and commerce of modern-day France. Extensive practice in business writing and communication. Conducted in French. Prerequisite: FRE 1121.

FRE 3500 Civilization I (3). Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values.

FRE 3700 Introduction to General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory.

FRE 3740 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem solving in syntax and phonetics, through the application of modern/ traditional methods.

FRE 3780 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.

FRE 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification.

FRE 4422 Advanced French Composition (3). A study of various aspects of forms and styles, with emphasis on expository writing in French. Prerequisite: FRE 3421.

FRE 4470 Foreign Study: Advanced Language/Literature (12). Full-semester credit for foreign residence and study/work. (Approval of Department required.)

FRE 4501 Civilization II (3). Open to any student who understands the target language. The making of a modern culture. The ideological, political, and economic background of contemporary culture.

FRE 4562 Studies in Bilingualism (3). Readings and analysis of bilingual programs and bi-national goals.

FRE 4791 Contrastive Phonology (3). Contrasts in the sound systems of English and French.

FRE 4800 Contrastive Morphology (3). Contrasts in the morphology and syntax of English and French.

FRE 4840 History of the Language (3). The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisite: FRE 3780 or LIN 3010 or LIN 3013.

FRE 4935 Senior Seminar (3). Topic and approach to be determined by students and instructor.

FRE 5060 Language for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. and Ph.D. requirements. Open to any student who has no prior knowledge of the language.

FRE 5061 Language for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: FRE 5060 or equivalent.

FRE 5565 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals.

FRE 5735 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of Department required.)

FRE 5755 Old French Language (3). Introduction to the phonology, morphology, and syntax of the Old French language. Reading and analysis of the 12th and 13th century texts in their original. Comparison of major medieval dialects. Prerequisite: FRE 4840 or FRE 5845.

FRE 5845 History of the Language (3). The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisite: FRE 3780 or LIN 3010 or LIN 3013.

FRE 5908 Independent Study (1-3). Project, field experience, readings, or research.

FRT 3800 Basic Translation Exercises (3). Emphasis on basic principles and practice application. Prerequisite: FRE 3421.

FRT 4801 Professional Translation (3). Techniques and resources for professional translation. Prerequisite: FRT 3810.

FRT 5805 Translation/Interpretation Arts (3). Techniques of professional translation and interpretation. Prerequisite: FRT 4801.

FRW 3200 Introduction to Literature (3). Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.

FRW 3280 French 19th Century Novel (3). Four major novels by major 19th century novelists will be selected to illustrate the development of novelist techniques as well as of a different conception of the role of the novel that finally made it most important literary genre. Prerequisite: FRW 3810 or another FRW course.

FRW 3300 French Comedies (3). A study in French comedies from the 15th century to the 19th century, with special emphasis on Moliere's plays. Prerequisite: FRW 3200.

FRW 3323 French 19th Century Drama (3). Plays will be chosen to illustrate various literary movements in 19th century French drama: Romanticism, Realism, Naturalism, and Symbolism. Prerequisite: FRW 3200.

FRW 3370 French 19th and 20th Century Short Stories (3). Great short stories by Maupassant, Merimee, Flaubert, Camus, and Sartre will be studied to familiarize the student with literary criticism by a close reading and analysis of short texts. Prerequisite: FRE 3421.

FRW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

FRW 3532 French Romantic Literature (3). A study of French Romantic generation through the works of Lamartine, Hugo, de Musset, etc. Prerequisite: FRW 3200.

FRW 3810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

FRW 3905 Independent Study (3). Project, field experience, readings, or apprenticeship.

FRW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor.

FRW 4212 French Classical Prose (3). Study of major works of 17th century French authors such as Descartes, Pascal, La Rochefoucauld, La Bruyere, etc. Prerequisites: FRW 3200, and another FRW course.

FRW 4272 French Novels from the Classical Period (3). A study of major 17th and 18th century French novels. Course conducted in French. Prerequisites: FRW 3200, and another FRW course.

FRW 4281 French 20th Century Novel (3). Novels by different novelists will be selected to illustrate the variety of the 20th century French novel from Gide and Proust, Malraux, Bernanos or Mauriac to existentialism and the New Novel. Prerequisites: FRW 3200, and another FRW course.

FRW 4310 Seventeenth-Century French Drama (3). A study of French classical aesthetics through the plays of Corneille, Moliere, and Racine. Prerequisites: FRW 3200, and another FRW course.

FRW 4324 French 20th Century Theatre (3). Plays by various dramatists will be selected to give an idea of the scope and variety of contemporary French theatre from Claudel and Giraudoux to Existentialism and the theatre of the absurd. Prerequisites: FRW 3200, and another FRW course.

FRW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FRW 4410 French Medieval Literature (3). A study in different literary forms prevalent during the 12th and 15th centuries. Read in modern French; course will be conducted in French. Prerequisites: FRW 3200, and another FRW course.

FRW 4420 Sixteenth-Century French Literature (3). A study of major authors of the French Renaissance, Rabelais, Ronsard, Montaigne, etc. Course conducted in French. Prerequisites: FRW 3810 or 3820, and another FRW course.

FRW 4570 French Existentialists Literature (3). Novels and plays by existentialist writers will be studied as representative of a major philosophical trend in the mid-20th century. Prerequisites: FRW 3810 or 3820, and another FRW course.

FRW 4583 French Women Novelists (3). Novels by various women writers, from the 19th century but mostly from the 20th century, will be selected to illustrate the increasing number of important writings by contemporary writers as well as the scope and variety of their concerns. Prerequisites: FRW 3810 or 3820, and another FRW course.

FRW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

FRW 4905 Independent Study (1-3). Project, field experience, readings, or research.

FRW 4930 Special Topics (3). Independent readings, research, or project.

FRW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FRW 5934 Special Topics in Language Literature (3). Content and objectives to be determined by student and instructor.

FRW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

GER 3000 Elementary German (3). Emphasis on oral skills, contemporary language, and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

GER 3120 German I (5). Provides training in the acquisition and application of basic language skills.

GER 3121 German II (5). Provides training in the acquisition and application of basic language skills.

GER 3210 Intermediate German (5). Provides intermediate training in the acquisition and application of basic language skills.

GER 3240 German Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: GER 3131 or equivalent.

GER 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

GER 4905 Independent Study (1-3). Project, field experience, readings, or research.

GER 4930 Special Topics (3). Independent readings, research, or project.

GER 5060 German for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

GER 5061 German for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: GER 5060 or the equivalent.

GET 3100 Literature in Translation (3). Masterpieces in German literature in English. Comparative use of the original text. Discussion and interpretation.

HBR 3000 Elementary Hebrew (3). Emphasis on oral skills, contemporary language, and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

HBR 3120 Hebrew I (5). Provides training in the acquisition and application of basic language skills.

HBR 3121 Hebrew II (5). Provides training in the acquisition and application of basic language skills.

HBR 3200 Intermediate Hebrew (5). Provides training in the acquisition and application of basic language skills.

ITA 3000 Elementary Italian (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests.

This course is not part of a series. No prerequisites.

ITA 3120 Italian I (5). Provides training in the acquisition and application of basic language skills.

ITA 3121 Italian II (5). Provides training in the acquisition and application of basic language skills.

ITA 3210 Intermediate Italian (5). Provides intermediate training in the acquisition and application of basic language skills.

ITA 3240 Italian Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: ITA 3131 or equivalent.

ITA 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

ITA 4905 Independent Study (1-3). Project, field experience, readings, or research.

ITA 4930 Special Topics (3). Independent readings, research, or project.

ITT 3110 Literature in Translation (3). Masterpieces of Italian literature in English. Comparative use of the original text. Discussion and interpretation.

JPN 3120 Japanese I (5). Provides training in the acquisition and application of basic language skills.

JPN 3121 Japanese II (5). Provides training in the acquisition and application of basic language skills.

JPN 3210 Intermediate Japanese (5). Provides intermediate training in the acquisition and application of basic language skills.

LIN 3010 Introduction to General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory.

LIN 3200 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisite: LIN 3010 or equivalent.

LIN 3610 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisite: LIN 3010 or equivalent.

LIN 4226 Contrastive Phonology (3). For students proficient in more than one foreign language. Choice of languages to be determined by students and instructor. Prerequisite: LIN 3010 or equivalent.

LIN 4333 Contrastive Morphology (3). For students proficient in more than one foreign language. Content and emphasis to be determined by students and instructor. Prerequisite: LIN 3010 or equivalent.

LIN 4400 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. Prerequisite: LIN 3010 or equivalent.

LIN 4418 Problems in Language Learning (3). Primarily designed for prospective teachers, but open to all interested students. The course will aim to devise approaches to difficulties commonly experienced in syntax, usage, reading and comprehension. Prerequisite: LIN 3010 or equivalent.

LIN 4620 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010 or equivalent.

LIN 5207C Acoustic Phonetics (3). Introduction to principles of acoustic and instrumental phonetics, including the physics of speech sounds and use of the sound spectrograph and other instruments. Prerequisites: LIN 3010 and one additional course in phonetics/phonology. Corequisite: One of the prerequisites may be counted as a corequisite.

LIN 5435 Research Methods in Linguistics (3). The collection and analysis of linguistic data: sampling techniques, interviews, recordings, questionnaires, transcription, basic statistical procedures, including the use of computer analysis. Prerequisite: LIN 3010 or equivalent.

LIN 5600 Sociolinguistics (3). Principles and theories of linguistic variation with special attention to correspondences between social and linguistic variables. Prerequisite: LIN 3010 or equivalent.

LIN 5613 Dialectology (3). The geography of language variation: linguistic geography, atlases, national and regional studies. Dialectology within a modern sociolinguistic frame work; research approaches. Prerequisites: LIN 3010 and one other graduate-level linguistics course.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010 or equivalent.

LIN 5720 Second Language Acquisition (3). Research, theories, and issues in second language acquisition. Topics include the Monitor Model, the role of the first language, motivation, age, individual differences, code-switching, and the environment; affective variables and attitudes.

LIN 6934 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.)

(See English listing for additional Linguistics courses.)

POR 3000 Elementary Portuguese (3). Emphasis on oral skills, contemporary language, and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

POR 3130 Portuguese I (5). Provides training in the acquisition and application of basic language skills.

POR 3131 Portuguese II (5). Provides training in the acquisition and application of basic language skills.

POR 3200 Intermediate Portuguese (5). Provides intermediate training in the acquisition and application of basic language skills.

POR 3240 Portuguese Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: POR 3131 or equivalent.

POR 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

POR 3421 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modem essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and compositions.

POR 3500 Luso-Brazilian Culture (3). Open to any student who understands Portuguese. The development of Portuguese speaking civilizations, with emphasis on either Portugal or Brazil: history, art, music, daily life, impact on other cultures.

POR 3930 Special Topics in Language Linguistics (3). Readings, research, and discussion of topics in Portuguese language or lintguistics to be determined by students and instructor.

POR 4470 Foreign Study: Advanced Language Literature (VAR). Up to a full semester credit for foreign residence and study/work. (Approval of Department required.)

POW 4905 Independent Study (VAR). Project, field experience, readings, or research.

POW 4930 Special Topics (3). Independent readings, research, or project.

PRT 3401 Literature in Translation (3). Masterpieces of Portuguese literature in English. Comparative use of the original text. Discussion and interpretation.

RUS 3120 Russian I (5). Provides training in the acquisition and application of basic lantguage skills.

RUS 3121 Russian II (5). Provides training in the acquisition and application of basic language skills.

RUS 3210 Intermediate Russian (5). Provides intermediate training in the acquisition and application of basic language skills.

SPN 1030 Elementary Spanish for Medical Personnel (5). Conversational elementary Spanish for medical personnel. Recommended for non-native speakers of Spanish who are in nursing or other health-related professions.

SPN 1120 Basic Spanish I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral Spanish and on acquiring basic language skills.

SPN 1121 Basic Spanish II (5). Emphasis on oral Spanish and on acquiring basic language skills. This course completes the lower-division language requirement.

SPN 2340 Intermediate Spanish for Native Speakers (3). Improvement of spelling, grammar, vocabulary, reading, writing, and oral skills for Hispanic bilinguals educated in the U.S., with less than two years of formal training in Spanish but whose mother tongue is Spanish. Prerequisite: Ability to understand Spanish.

SPN 3000 Elementary Spanish (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests.
This course is not part of a series. No prerequisites.

SPN 3013 Language Skills for Professional Personnel (1-3). The course is geared to the special linguistic needs of the community groups (medical, business, technical, etc.).

SPN 3120 Spanish I (5). Provides training in the acquisition and application of basic lansguage skills.

SPN 3121 Spanish II (5). Provides training in the acquisition and application of basic language skills.

SPN 3200 Intermediate Spanish (5). Provides intermediate training in the acquisition and application of basic language skills.

SPN 3240 Intermediate Spanish Conversation (1). This course is designed to help students maintain and increase their ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: SPN 1121 or equivalent.

SPN 3270 Foreign Study (12). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

SPN 3301 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language. For non-native speakers.

SPN 3302 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and composition.

SPN 3341 Advanced Spanish for Native Speakers (3). Improvement of literacy skills through grammar review, composition, and selected readings of representative Hispanic writers, including Cuban, Puerto Rican, and Chicano authors. For U.S. Hispanic bilinguals with at least two years of formal training in Spanish. Prerequisite: SPN 2340 or permission of instructor.

SPN 3401 Advanced Conversation (3). Improvement of oral proficiency and listening comprehension skills, correction of accent, vocabulary building. Use of small group conversation, pronunciation tapes, and varied outside readings.

SPN 3415 Communication Arts (3). Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.

SPN 3440 Spanish Business Composition/Correspondence (3). Training in the special writing needs of business: letter-writing, memoranda, brochures, advertising, proposals, declarations, government documents, etc.

SPN 3520 Spanish American Culture (3). Introduction to the major artistic and cultural phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisite: Ability to understand Spanish at advanced level.

SPN 3702 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. Prerequisite: LIN 3010 or equivalent. (Conducted in Spanish).

SPN 3733 Introduction to General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in Spanish.) Equivalent to LIN 3010.

SPN 3780 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisite: LIN 3010 or equivalent.

SPN 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisite: LIN 3010 or equivalent.

SPN 4470 Foreign Study: Advanced Language Literature (12). Full semester credit for foreign residence and study/work. (Approval of the Department required.)

SPN 4500 Spanish Culture (3). Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values.

SPN 4562 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010 or equivalent.

SPN 4790 Contrastive Phonology (3). Contrasts in the sound systems of English and Spanish. Prerequisite: LIN 3010 or equivalent.

SPN 4800 Contrastive Morphology (3). Contrasts in the morphology and syntax of English and Spanish. Prerequisite: LIN 3010 or equivalent.

SPN 4802 Contrastive Syntax (3). Contrasts in the grammatical systems of English and Spanish with emphasis on structures with equivalent meanings. Recommended for students of translation and interpretation. Prerequisite: LIN 3010 or permission of the instructor.

SPN 4822 Hispanic-American Sociolinguistics (3). Language and society in Latin America. Sociolinguistic theory followed by consideration of specific language problems in Spanish- and Portuguese-speaking areas of the Americas. Prerequisite: LIN 3010 or equivalent.

SPN 4824 Dialectology of the Spanish Caribbean (3). Study of varieties of Spanish used in the Caribbean area, including Miami-Cuban Spanish. The course will take historical and contemporary perspectives and will involve research among informants in South Florida.

SPN 4840 History of the Language (3). The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisite: LIN 3010 or equivalent.

SPN 4905 Independent Study (1-3). Project, field experience, readings, or research.

SPN 4930 Special Topics in Linguistics (3). Provides the opportunity for students and instructor to explore topics not included in the regular course offerings. Content to be determined.

SPN 4936 Senior Seminar (3). Topic and approach to be determined by students and instructor.

SPN 5060 Language for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

SPN 5061 Language for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: SPN 5060 or the equivalent.

SPN 5525 Spanish American Culture (3). A graduate survey of the major artistic phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisite: Graduate standing and permission of the instructor.

SPN 5565 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals.

SPN 5845 History of the Language (3). Historical development of the Spanish language, primarily from the point of view of internal linguistic change. Spanish as an example of general processes of language development. Prerequisites: LIN 3010 and one other course in Spanish linguistics.

SPN 5908 Independent Study (1-3). Project, field experience, readings, or research.

SPN 6505 Spanish Culture (3). Selected development in language, literature, art, music, film, and the social institutions of Spain. Prerequisites: Graduate standing and permission of instructor.

SPN 6535 The Hispanic Presence in the United States (3). Readings in literature, culture, and language to illustrate the experience of the major Hispanic groups in the United States. Prerequisites: Graduate standing and permission of the instructor.

SPN 6930 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of the Department required.)

SPN 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of Department.

SPT 3110 Literature in Translation (3). Masterpieces of Hispanic literature in English. Comparative use of the original text. Discussion and interpretation.

SPT 3800 Introduction to Translation Skills (3). Basic written translation into and out of English.

SPT 3812 Introduction to Oral Translation (3). Basic public-speaking techniques for sight translation. Beginning exercises in sight translation into and out of English and Spanish.

SPT 4801 Translation Practica (3). Translation of media, literary, and scientific texts.

SPT 4802 Practica in Oral Translation and Interpretation (3). Sight translation into and out of English. Introduction to the study of terminology. Prerequisite: SPT 3812 or permission of instructor.

SPT 4803 Practica in Legal Translation (3). Provides advanced training in translating most commonly used legal documents in both civil and criminal procedures.

SPT 4804 Practice in Legal Interpretation (3). Training in consecutive and simultaneous interpretation of both civil and criminal legal proceedings before Federal and State courts.

SPT 4805 Translation in Communication Media (3). Provide insight into the techniques of translation of advertising, public relations and publicity materials to be used in the mass media such as print and broadcasting.

SPT 4806 Oral Skills for Interpreters (3). Voice production in sight translation, consecutive and simultaneous interpretation. Vocal projection, enunciation and phonetics, theory and practice. Extensive exercises in vocal control. Use of sound equipment. Prerequisite: SPT 3812.

SPT 4807 Practica in Business Translation (3). Business and language translation and the business world. Principles, techniques, and methods of business translation. Extensive practical exercises in translating routine business documents English to Spanish and vice versa. Prerequisite: SPT 3800.

SPT 4808 Practica in Technological Translation (3). Language and technology. The translator in the technological world. Principles, techniques, and methods of technological translation. Extensive practical exercises. Prerequisite: SPT 3800.

SPT 4809 Practica in Medical Translation (3). Medical language. The translator and the medical world. Principles, techniques and methods of medical translation. Extensive practical exercises in translating routine medical documents English to Spanish and vice versa. Prerequisite: SPT 3800.

SPT 4813 The Interpreter and Language (3). The interpreter as a linguistics expert. The stylistic levels of language. Legal jargon and street language in English and Spanish. Dialectal problems. Practical and ethnical problems. Prerequisite: SPT 3812.

SPT 4820 Computer-Aided Translation (3). The translating machine and computer-aided translation. Machine operation. Selected applications of computer translating texts from various disciplines. Correction of translated texts with computers. Prerequisites: SPT 3800, CDA 2310, and permission of director of program.

SPT 4940 Judicial Translation-Interpretation Internship (3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situ what they have learned. Prerequisites: SPT 3800, SPT 3812, SPT 4801, SPT 4803, SPT 4804, SPT 4806, SPT 4807.

SPT 4941 Professional Translation-Interpretation Internship (3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situ what they have learned. Prerequisites: SPT 3800, SPT 3812, and permission of instructor.

SPT 5118 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

SPW 3323 Garcia Lorca's Theatre (3). Readings from representative plays by Spain's finest dramatist of the 20th century, including his three well-known tragedies and a number of short comic plays. Discussion of such themes as social and individual justice and freedom; passion and repression; and the role of poetry in the theatre.

SPW 3342 Twentieth Century Spanish Poets (3). Readings from selected poets of the 20th century, such as Antonio Machado, Miguel Hernandez, Damaso Alonso, and Rafael Alberti. Close examination of the poems representative of these poets, and their contribution to the development of Spanish poetry from the Generation of 1898 to the middle of the 20th century.

SPW 3371 The Latin American Short Story (3). Readings from the 19th century authors and such 20th century masters as Borges, Cortazar, Cabrera Infante, Garcia Marquez, and Rulfo. Examination of short-story techniques and of such themes as social satire, the nature of reality, reason, and irrationally.

SPW 3423 Masterworks of the Golden Age (3). Readings from selected masterpieces of the Spanish Renaissance and Baroque, such as La Celestina, Lazarillo de Tormes, and the short novels of Cervantes. Emphasis on satire and the representation of such human problems as freedom, poverty, and the rebellion of the individual.

SPW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

SPW 3604 Don Quijote (3). A careful reading and discussion of Cervantes' Don Quijote, with particular attention to its multiple meanings in human terms, its innovative contributions to the novel in Europe, and the author's use of irony, characterization, and humor.

SPW 3720 The Generation of 98 (3). Based on the works of Azorin, Baroja, Ganivet, Machado, Maetzu, Unamuno, and Valle-Inclan, this course will emphasize the individual thrust each author makes to foster artistic revolution and human regeneration, within a society characterized by abulia and existentialist anxiety.

SPW 3810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

SPW 3820 Introduction to Literature (3). Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.

SPW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor.

SPW 4152 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by students and instructor.

SPW 4263 The Spanish Novel of the Nineteenth Century (3). Within the context of literature and society, representative Spanish novels of the epoch will be studied. Special attention will be given to Galdos and Clarin.

SPW 4271 Twentieth-Century Spanish Novel to 1956 (3). A study of the genre in Spain before and after the Civil War. Emphasis will be on predominant narrative tendencies. Representative authors will be discussed, such as Cela, Laforet, Sender, Matute, Medio, and others.

SPW 4304 Latin American Theatre (3). A view of Latin American theatre from the 19th century to the present. Representative works of the most reknown dramatists will be examined, with emphasis on the works of Usigili, Triana, Marques Wolff, and Diaz.

SPW 4324 Contemporary Spanish Drama: Buero Vallejo (3). Chronological readings from plays written between 1949-1980. Emphasis on dramatic reading. An examination of the evolution of dramatic art in the contexts of censorship and freedom.

SPW 4334 Golden Age Poetry (3). Selected readings from the major lyric poets of the 16th and 17th centuries. Special attention to the problems of contemporary readings of classical texts.

SPW 4343 Poetry of Garcia Lorca (3). Chronological examination of the major works of Spain's greatest poet. Special attention to the lyric and dramatic features.

SPW 4351 Spanish American Poetry I (3). A view of Spanish American poetry from the Pre-Colonial period until 1850. Representative works of the most reknown poets will be examined, with emphasis on Ercilla, Sor Juana, Bello, Heredia, and Avellaneda.

SPW 4352 Spanish American Poetry II (3). A view of Spanish American poetry from 1850 to the present. Representative works of the important poets will be examined, and special attention will be given to Lezama Lima, Parra, Paz, and Vallejo.

SPW 4364 The Spanish American Essay (3). A study of the ideological and intellectual forces that have shaped the Spanish American thought, as expressed in the works of representative authors such as Rodo, Mallea, Martinez Estrada, Paz, Manach, and others.

SPW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

SPW 4424 Golden Age Drama (3). Close readings from the finest plays written in Spain's Golden Age by Lope de Vega, Calderon, Tirso, and others, including the Don Juan theme. An examination of theatre as stylized conformity and as protest literature in a highly controlled society.

SPW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

SPW 4930 Special Topics (3). Independent readings, research, or project.

SPW 5155 Comparative Studies (3). Crossover and distinctiveness in a multi-language problem, period, or aesthetic.

SPW 5237 The Traditional Spanish American Novel (3). Study and analysis of the traditional Spanish novel as a form of art, from 19th century Lizardi's El periquillo sarniento, to 1950. The novels and authors studied are representative of 'costumbrismo', 'romanticismo', 'naturalismo', 'modernismo', and 'criollismo'.

SPW 5277 Twentieth Century Spanish Novel, from 1956 to the Present (3). Analysis of the Spanish novel from Ferlosio's El Jarama to the present. The perspective will be focused within historical, social, and artistic context. Representative authors such as Cela, Martin Santos, Umbral, Delibes, Benet, Goytisolo, and others will be included.

SPW 5286 Contemporary Spanish American Novel (3). A study of the Spanish American Novel from 1950. The course will intensively and extensively focus on the novelists who are best known for their innovations, defining and analyzing the qualities which give originality and newness both in themes and language.

SPW 5346 Poetry of Jorge Guillen (3). Selected readings from the five volumes of Aire nuestro. Emphasis on the techniques of close reading and explication. Related selections from Guillen's literary criticism.

SPW 5358 Graduate Seminar: Prose and Poetry of Jorge Luis Borges' (3). Close readings of short stories and poetry. Emphasis on Borge's linguistic and cultural pluralism and the interplay of philosophy with fabulation.

SPW 5359 Graduate Seminar: Poetry of Pablo-Neruda (3). Chronological examination of the major works of Chile's Nobel Laureate. Related readings from Neruda's Memories. Emphasis on the poet's linguistic and aesthetic innovations.

SPW 5425 Quevedo: Poetry (3). Close reading of selected poems by Spain's greatest baroque poet and creator of modern Spanish satire, including poems on love, death, and metaphysical concerns, and a wide range of humorous poems.

SPW 5426 Quevedo: Prose Satire (3). Close reading of selected satires in prose by Spain's greatest baroque satirist and creator of modern Spanish satire. Includes Quevedo's picaresque novel El Buscon, and his Suenos, or Visions of Hell.

SPW 5576 Spanish American Modernism (3). An in-depth study of prose and poetry of one of the most important periods of Spanish American literature, focusing on Marti, Dario, Najera, Casals, Silva, Valencia, Lugones, and Herrera y Reissig.

SPW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by student and instructor.

SPW 6395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry,) or the study of interaction between literary types (e.g. novel and drama).

SPW 6936 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

Music

Joseph Rohm, *Associate Professor and Chairperson*
John Augenblick, *Associate Professor*
John Brick, *Assistant Professor*
Philip H. Fink, *Professor*
Marie Leeda, *Assistant Professor*
Violet Vagramian-Nishanian, *Professor*

Degree: **Bachelor of Music**

Freshman/Sophomore Admission
Freshman admission requires 12 high school academic units, a 3.0 GPA, and a score of 1,000 on the SAT. Some exceptions may be made for talented students. Junior/Senior Admission

Music Students at the University come from a wide variety of academic backgrounds from both Florida and other states. Because of this diversity, the Faculty of Music gives two basic preliminary examinations in order to assist the student to eliminate any deficiencies:

1. Music Theory - consisting of melodic and harmonic dictation, piano proficiencies, and written harmonization

2. Performance Skills - consisting of performing one or more solo works for the faculty during the first week of classes.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. The following is a Bachelor of Music Plan for those students interested in a music degree. In addition, students should consult the Music Students Handbook.

Four Year Plan
Music

First Year	
	1st Semester
Theory	3
Sightsinging	1
Private Lesson	2
Ensemble (Two each semester)	2
Class Piano	1
Academic Electives	8
	18
	2nd Semester
Theory	3
Sightsinging	1
Private Lesson	2
Ensemble (Two each semester)	2
Class Piano	1
Academic Electives	9
	17
Second Year	
	1st Semester
Theory	3
Sightsinging	1
Class Piano	1
Private Lesson	2
Ensemble (Two each semester)	2
Academic Electives	8
	14
	2nd Semester
Theory	3
Sightsinging	1
Class Piano	1
Private Lesson	2
Ensemble (Two each semester)	2
Academic Electives	8
	17

Third Year	
	1st Semester
Counterpoint (MUT 3416)	3
Basic Conducting	1
Private Lesson	2
Ensemble (Two each semester)	2
Music History	3
Electives	6
	2nd Semester
Form/Analysis	3
Conducting (Instrumental or Choral)	1
Private Lesson	2
Ensemble (Two each semester)	2
Music History	3
Electives	6
	17
Fourth Year	
	1st Semester
Orchestration	3
Private Lesson	2
Ensemble (Two each semester)	2
20th Century Music History	3
Music Electives	7
	17
	2nd Semester
Private Lesson	2
Ensemble (Two each semester)	2
Research/Recital	1
Music Electives	9
Electives	6

A 'B' average in all courses required for the major is necessary for graduation.

Minor in Music	
Theory/Sightsinging	8
History	6
Ensemble (4 Semesters)	4
Music Electives	6
	24

Course Descriptions

Definition of Prefixes

HUM—Humanities; MUC—Music: Composition; MUE—Music: Education; MUG—Music: Conducting; MUH—Music—History / Musicology; MUL—Music: Literature; MUM—Music: Commercial; MUN—Music: Ensembles; MUS—Music; MUT—Music: Theory; MVB—Applied Music/Brass; MVK—Applied Music—Keyboard; MVP—Applied Music/Percussions; MVS—Applied Music/Strings; MVV—Applied Music/Voice; MVW—Applied Music/Woodwinds.

MUC 4201 Music Composition I (3). A course designed to give the advanced student intensive experience in creative writing. Compositional techniques and devices will be studied, through an analysis of works by major composers. Prerequisite: MUT 4311 or permission of instructor.

MUC 4202 Music Composition II (3). A continuation of Music Composition I. The larger forms of music composition are analyzed and composed. Prerequisite: MUC 4201.

MUE 3140 Solfege (3). A course designed to strengthen and build the student's ability to write and perform melodic, harmonic and keyboard dictation. It will also provide a rhythm pattern sequence necessary to write and understand the modern idiom of score reading analysis and transposition.

MUE 3450 Woodwind Techniques (1). Class instruction of woodwind instruments; tuning and care of instruments. Teaching techniques. Single reed instruments, double reed instruments, and flute. Class one hour, laboratory one hour.

MUE 3460 Brass Techniques (1). Class instruction of brass instruments; tuning and care of instruments. Teaching techniques. Piston and valve instruments, french horn, and trombone. Class one hour, laboratory one hour.

MUE 3470 Percussion Techniques (1). Class instruction of percussion instruments; sticking techniques; care of instruments; teaching techniques. Drum and mallet instruments. Class one hour, laboratory one hour.

MUE 5928 Workshop in Music (2). Applications of materials and techniques in music in a laboratory or field setting.

MUG 4101 Basic Conducting (1). A basic conducting course to gain fundamental technique and interpretation. A prerequisite for both advanced instruments and choral conducting.

MUG 4202 Choral Conducting (1). With a background in basic theory, and having performed in organizations, the student will develop techniques of group conducting including madrigal, glee, choir, etc. A survey of choral literature will be included. Prerequisite: MUG 4101.

MUG 4302 Instrumental Conducting (1). With a background in basic, theory, and having performed in organizations, the student will develop a knowledge of baton technique, score reading, and interpretation. Prerequisite: MUG 4101. Corequisite: Orchestra or wind ensemble or both.

MUG 5105 Advanced Conducting Techniques (1). An extension of form and analysis, with interpretation both in instrumental and choral conducting. Twentieth century scoring and symbol interpretation will be studied in depth, with actual conducting experience required.

MUH 1001 Musical Art Course (3). Lives and creations of great composers in various periods of history. A multi-media course.

MUH 2116 Evolution of Jazz (3). A history course that surveys jazz styles from mid-19th century to 1977. A sociological and musical look at jazz; the personalities and their experience.

MUH 3211 Music History Survey (3). A survey of music from antiquity to 1750. Lectures on historical styles will be supplemented with slides, recordings, and musical analysis. Prerequisite: Core for Music majors or by permission of instructor.

MUH 3212 Music History Survey (3). A survey of music from 1750 to the present. Lectures on historical styles will be supplemented with slides, recordings, and musical analysis. Prerequisite: Core for Music majors or by permission of instructor.

MUH 3372 Twentieth Century Music: Exploration (3). An exploration of music since 1900. Lectures on style plus demonstrations will be supplemented with recordings and analysis. Elements of the popular idiom will be investigated.

MUH 5375 Twentieth Century Music: 'New Dimensions' (3). A technical study of music since 1900. Lectures on style plus demonstrations and practical application will be supplehmented with recordings and analysis. Elecvitronic and multi-media performance will be accented.

MUL 3011 Understanding and Enjoyment of Music I (3). A non-technical introduction to program music of the 19th century, and folk/popular music of the 20th century.

MUL 3012 Understanding and Enjoyment of Music II (3). A non-technical introduction to music before the 1800's and music of the 20th century. comparisons of music up to and including electronic music.

MUL 4400 Keyboard Literature (3). Study of solo works for the keyboard from historical beginnings to the present. Performance practices and stylistic analysis will be emphasized, with illustrations of representative works.

MUL 4500 Symphonic Literature (3). Survey of symphonic literature from the 17th century to present day. Analysis and illustrations of representative works.

MUL 4661 History and Literature of Opera (3). Chronological survey of opera literature from the 17th century to present day. Analysis and performance of representative works.

MUM 1401 Music Calligraphy (3). The correct procedures for music penmanship, the notation of notes and chords for music parts and scores.

MUM 3601 Audio Techniques I (3). Basic sound engineering, including the basic workings of P.A. equipment and the interplay between the various components.

MUM 3602 Audio Techniques II (3). Studio recording techniques, microphone placement, taping and mixing.

MUM 4301 Business of Music (3). Principles and practices of modem publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producers directors, performers, writers, personnel managers, and booking agents. Prerequisite: Permission of instructor.

MUM 4302 Business of Music II (3). Continuation of principles and practices of modem publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producer, directors, performers, writers, personnel managers, booking agents. Prerequisite: MUM 4301.

MUM 4940 Music Internship (VAR). Practical experience utilizing music theory, composition, and history in the commercial music industry. The precise nature of the work will be determined in consultation with an advisor. Prerequisite: MUM 4302.

MUN 1100, 2100, 3100, 4100, 5105 University Pep Band (1). A study and performance of pop, jazz, and rock musical selections for the instrumental medium. Students will demonstrate what they have learned by performing and through individualized playing examinations. Prerequisite: Permission of instructor.

MUN 1140, 2140, 3140, 4140, 5145 Wind Ensemble (1). Readings and performances of wind ensemble music from the 18th century to the present. Open to wind and percussion instrumentalists. Prerequisite: Permission of conductor.

MUN 1210, 2210, 3210, 4210, 5215 Orchestra (1). An instrumental ensemble performing works from the symphonic repertory. Prerequisites: Previous experience and permission of conductor.

MUN 1340, 2340, 3340, 4340, 5345 Sunblazer Singers (1). A small ensemble of selected mixed voices performing a repertoire in the modern popular idiom. Miniature contemporary accompaniment will be utilized. Prerequisite: Permission of conductor.

MUN 1380, 2380, 3380, 4380, 5385 University Singers (1). A chorus performing a repertoire primarily from great choral works. Large orchestral accompaniment as well as various instrumental ensembles will be utilized. Prerequisite: Permission of conductor.

MUN 1430 , 2140, 3140, 4140, 5145 University Brass Choir (1). A study and performance of literature written for the brass medium (trumpet, horn, trombone, euphonium, and tuba) from the pre-baroque, baroque, classical, romantic and contemporary periods. May be repeated. Prerequisite: Permission of instructor.

MUN 1460, 2460, 3460, 4460, 5465 Chamber Music (1). Small ensemble in the performing of chamber music literature. Prerequisite: Permission of conductor.

MUN 1710, 2710, 3710, 4710, 5715 Studio Jazz Ensemble (1). An ensemble to provide creative professional-level experience in the contemporary popular idiom. Permission of conductor.

MUS 3905, MUS 5905 Directed Study (VAR). Designed to provide areas of exploration and specialization beyond the basic selected study programs, such as electronic music, religious music literature, sound techniques, etc.

MUS 3910, MUS 4910, MUS 5910 Research (VAR). Research composition or performance projects, under the guidance and direction of the music faculty. (May be repeated.)

MUS 3949 Cooperative Education in Performing Arts (VAR). A student majoring in Performing Arts may spend several semesters fully employed in industry or government in a capacity relating to the major.

MUS 4949 Cooperative Education in Performing Arts (VAR). A student majoring in Performing Arts may spend several semesters fully employed in industry or government in a capacity relating to the major.

MUT 1001 Fundamentals of Music (3). A beginning music theory course in the basic elements of music rhythms, meter notation, key signatures scales, intervals, and triads.

MUT 1111 First Year Music Theory I (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Corequisite: MUT 1221.

MUT 1112 First Year Music Theory II (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. The second semester is a continuation of Theory I. Prerequisite: MUT 1111, Corequisite: 1222.

MUT 1221 Sightsinging I (1). Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises.

MUT 1222 Sightsinging II (1). Development of Basic Musicianship through aural perception, sightsinging and ear training exercises. The second semester is a continuation of Sight singing I. Prerequisite: MUT 1221.

MUT 2116 Second Year Music Theory I (3). Continuation of Freshman Theory. It seeks to promote and further develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Prerequisite: MUT 1112. Corequisite: MUT 2226.

MUT 2117 Second Year Music Theory II (3). This course further develops those skills acquired in sophomore Theory I. Prerequisite: MUT 2116. Corequisite: MUT 2227.

MUT 2226 Second Year Sightsinging I (1). Continuation of the Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises. Prerequisite: MUT 1222. Corequisite: MUT 2116.

MUT 2227 Second Year Sightsinging II (1). Continuation of the Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises. Prerequisites: MUT 2226, MUT 2116. Corequisite: MUT 2117.

MUT 3031 Music Theory I (3). Designed to review and develop skills in basic theory, harmony, and ear training.

MUT 3032 Music Theory II (3). Designed to review and further develop skills in basic theory, harmony, and ear training.

MUT 3416 Counterpoint (3). A study of linear writing through species counterpoint. Two and three-part instrumental and vocal counterpoint of the l8th century: Canon, inventions, fugues. Particular emphasis will be placed on formal analysis. Prerequisite: MUT 2117, 2227, or equivalent.

MUT 3611 Form and Analysis (3). Study and analysis from the smaller forms of musical composition to multimovement forms. Prerequisite: MUT 3416.

MUT 4311 Orchestration (3). With a background of basic theory, the student will explore the techniques of writing and arranging for instruments in performing organizations and choral groups.

MUT 4353 Jazz Arranging (3). This course teaches the fundamental aspects of jazz arranging: instrumentation, transposition, section and ensemble writing, chord voicings, counterpoint, and form and analysis. The performance of an original arrangement is required as a final project. Prerequisite: MUT 4641.

MUT 4561 Twentieth Century Theory-Composition (3). This course will analyze and compose works using the following procedures: melodic-harmonic techniques developed in the late nineteenth century; serial, and improvisational techniques; and those derived from the use of electronic devices as performance media.

MUT 4641 Jazz Improvisation I (3). A beginning course in Jazz improvisation that teaches fundamental aspects, chord structures and extensions, chord scales, melodic patterns, and tunes. Course will involve both theory and practical application. A concert will be held at conclusion of term.

MUT 4642 Jazz Improvisation II (3). A follow-up course that both reinforces and extends all material learned in Jazz Improvisation I. Course stresses more complex chord structure, scales, and tunes. A concert will be held at conclusion of the term.

MUT 4643 Jazz Improvisation III (3). A continuation of Jazz Improvisation II, this course teaches chromatic chords, advanced scales and progressions, patterns, repertoire. Individual and ensemble performance is required as a final project. Prerequisite: MUT 4642.

MUT 5325 Arranging (3). A course in practical arranging for the public school teacher, including choral, band, and popular arranging.

MVB 1314, 2324, 3334, 4345, 5355 Applied Music-Brass (1-2). Individual instruction in applied music on trumpet, French horn, trombone, baritone horn, or tuba. Music majors only.

MVK 1111 Class Piano I (1). A course designed to teach piano skills and competencies to non-piano majors. This is a four-semester sequence for music majors. This course includes: keyboard familiarization, finger exercises and techniques, transposing, and easy literature. Prerequisite: None.

MVK 1112 Class Piano (1). A continuation of Class Piano I, MVK 1111. Prerequisite: MVK 1111.

MVK 1311, 2321, 3331, 4341, 5351 Applied Music-Keyboard (1-2). Individual instruction in applied music on piano or organ. Music majors only.

MVK 2121 Class Piano II (1). A continuation of Class Piano I; The course includes continued work in finger technique, scales and fingering, transposing, simple accompaniments to folk songs, sight reading cadences, and simple literature. Prerequisite: MVK 1111.

MVK 2122 Class Piano II (1). A continuation of Class Piano II, MVK 2121. Prerequisite: MVK 2121.

MVP 1311, 2321, 3331, 4341, 5350 Applied Music-Percussion (1-2). Individual instruction in applied music on all percussion instruments. Music majors only.

MVS 1312, 2321, 3332, 4343, 5353 Applied Music-Strings (1-2). Individual instruction in applied music in violin, viola, cello, string bass, guitar, or harp. Music majors only.

MVS 3116 Guitar Skills (3). Emphasis on music reading and elementary techniques. Open to all Florida International University students.

MVS 3216 Intermediate Guitar Skills (3). Emphasis on techniques and styles such as calypso, folk, blues, classical, and jazz. Open to all Florida International University students.

MVS 4975 Recital and Research (1). All music majors, before graduation, must present at least one half of a public recital, and pass an oral examination on the music programmed.

MVV 1311, 2321, 3331, 4341, 5351 Applied Music - Voice (1-2). Individual instruction in applied music in voice. Music majors only.

MVV 3111 Class Instruction/Voice (3). Class instruction on voice designed to help the student in developing performance skills and increased musical knowledge. (May be repeated.)

MVV 4141 Intermediate Class Voice (3). Emphasis on sightsinging, tonal production, interpretation, and other vocal exercises. Particular attention is paid to vocal and acting improvisation. Prerequisite: MVV 3111.

MVW 1313, 2323, 3333, 4345, 5353 Applied Music - Woodwinds (1-2). Individual instruction in applied music on the flute, oboe, clarinet, bassoon, or saxophone. Music majors only.

Philosophy

Robert Hann, *Associate Professor and Chairperson, Department of Philosophy and Religion*
Michelle Beer, *Assistant Professor*
Bongkil Chung, *Associate Professor*
Catherine Culver, *Assistant Professor*
Paul Draper, *Assistant Professor*
Bruce Hauptli, *Associate Professor*
Kenneth Henley, *Associate Professor*
George Kovacs, *Professor*
Kenneth Rogerson, *Assistant Professor*

Degree: **Bachelor of Arts**

Philosophy is a program in the Department of Philosophy and Religion.

Lower Division Preparation

Recommended Courses: PHI 2100, Introduction to Logic and other courses in Philosophy and Religion.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)

Required Areas Epistemology	3
Metaphysics	3
Ethics and Aesthetics	3
Logic	3
History of Philosophy	9
Philosophy Seminar	3
Other Philosophy Courses	9
Courses in one other discipline	12
Electives[1]	15

[1] PHI 2011 Philosophical Analysis and PHI 3636 Professional Ethics may not be used to fulfill the requirement of 12 elective hours in the philosophy program.

Remarks: A detailed description of the Philosophy Program is contained in a brochure available at the Department of Philosophy and Religion. Students should consult the brochure for specific requirements of the major program. Students select their required courses in philosophy with the approval of a faculty member of the Department.

Students are also encouraged to consider a dual-major, and thus simultaneously to meet the requirements of two academic majors. In these cases, the twelve semester hour credits required in one academic discipline (as part of the Philosophy Major) are met by courses taken towards the second major. The Department offers many of its courses at the North Miami Campus and participates in the Humanities Major. For further information concerning these courses consult the Department.

Minor in Philosophy

A student majoring in another academic discipline can earn an academic minor in philosophy by taking an approved selection of at least four philosophy courses (12 semester hours) approved in advance by the Chairperson of the Department. An acceptable minor in philosophy would be four courses in one of the areas designated in the course list of the Philosophy Program. A student may propose still other patterns of four philosophy courses for a minor, provided the selection is based upon an acceptable academic rationale.

Course Descriptions

Definition of Prefixes

GRE—Ancient Greek; PHH—Philosophy, History of; PHI—Philosophy; PHM—Philosophy of Man and Society; PHP—Philosophers and Schools.

GRE 3050 Introduction to Ancient Greek (3). This course introduces the Greek language of Plato, the New Testament, and other works of the ancient period. Its goal is to enhance the understanding of translated texts and to prepare for more advanced study of Greek. A portion of the Gospel of John will be studied in class.

PHH 3042 Latin American Philosophy (3). This course will examine the development of Latin American thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of prominent Latin American philosophers in the light of problems such as personal and cultural identity.

PHH 3100 Ancient Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought, particularly in the Greek and Roman cultural settings, and linkages to their past and future are emphasized in this course.

PHH 3200 Medieval Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the Middle Ages, and linkages to their past and future are emphasized in this course.

PHH 3420 Early Modern Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the period from the Renaissance to Kant and the linkages to their past and future are emphasized in this course.

PHH 3440 Late Modern Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the period from Kant to Nietzsche and the linkages to their past and future are emphasized in this course.

PHH 3700 American Philosophy (3). This course will examine the development of American philosophical thought, with particular attention to the l9th and 20th centuries. It will consider the traditions and initiatives of the prominent American philosophers, in the light of problems such as the relationship between theory and practice.

PHH 3840 Indian Philosophy (3). Metaphysical, epistemological and ethical theories within such major Indian philosophical systems as philosophical Buddhism, Jainism, Samkhya dualism, and Vedanta transcendentalism are examined.

PHH 4600 Twentieth Century Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the present century, and linkages to past and emerging generations are emphasized in this course.

PHH 4930 A Major Philosopher (3). This course will examine in detail the works of a major figure in the history of philosophy. Prerequisite: Permission of instructor. Course may be repeated on a different philosopher.

PHI 2011 Philosophical Analysis (3). This course introduces both the tools of philosophical thinking and some of their applications to fundamental topics such as knowledge, value, meaning, and human society.

PHI 2100 Introduction to Logic (3). This introductory course in logical thinking and argumentation will treat both practical and theoretical approaches to understanding human communications and solving problems. Students will be introduced to inductive and deductive logic, fallacies, and the role of logic in scientific explanation and popular expression.

PHI 3101 Philosophical Logic (3). This course studies the propositional and predicate calculi and such topics as necessary truth, entailment, the ontological implications of logic, and the justification of deduction and induction.

PHI 3300 Epistemology (3). The viewpoints of various philosophers and schools of thought regarding types of knowledge, certitude, and creativity are the main emphases of this introductory course. The meaning of truth and truthfulness is analyzed from both the classical and the contemporary perspectives.

PHI 3320 Philosophy of Mind (3). An inquiry into the concept of mind and subsidiary concepts such as sensation, perception, desire, emotion, intention, volition, imagination, and intellect. The course will address the problem of the relation of mind and body and such topics as the concept of a person, the nature of intentional action, and the nature of consciousness.

PHI 3400 Philosophy of Science (3). The philosophic background of scientific method will be examined. Attention will be given to the philosophical consequences of conceptual change in the sciences. Such topics as the growth and unity of science, explanation and prediction, and the role of science in society will be explored.

PHI 3500 Metaphysics (3). This introductory course examines basic metaphysical questions regarding the nature of reality, as well as the meaning of these questions for the relationship of persons with their world. Fundamental texts from classical and contemporary philosophers will be considered.

PHI 3600 Ethics (3). What is intrinsically good? What ought one to do? How are moral claims justified? Competing views of major philosophers are considered.

PHI 3636 Professional Ethics (3). This course will examine the role of ethics in the professions. The focus will be on the moral issues arising in the professions with the aim of developing the analytical skills required to address such problems.

PHI 3700 Philosophy of Religion (3). This course investigates whether or not religious beliefs can be rationally justified. Such topics as the nature of God, the problem of evil, religious experience, and the relationship of faith to reason will be explored.

PHI 3762 Eastern Philosophical and Religious Thought (3). This introductory course examines the development of philosophical and religious thought in the East, from ancient to modern times. Hinduism, Buddhism, Confucianism, Taoism, and other major viewpoints will be considered, in themselves and in comparison with Western forms of thought.

PHI 3800 Aesthetics (3). An introduction to problems in aesthetics, with emphasis on those problems which are especially relevant to appreciation and criticism in the arts. Typical problems include the relation between form and content, truth and falsity in art, the nature of emotion in art and of the aesthetic response, as well as the nature of art itself. This course will include a study of selections from the writings of major thinkers and the consideration of those works of art which are relevant to this study.

PHI 4130 Symbolic Logic (3). This course provides an introduction to symbolic logic. Emphasis is upon both the formal techniques of analysis of argument and upon the theoretical aspects of formal logic.

PHI 4221 Philosophy of Language (3). This course examines the nature and structure of language from various philosophical perspectives. It includes an analysis of such themes as language and culture, language and thought, and the origin of language.

PHI 4222 Philosophy of Dialogue (3). This course examines the meaning, the foundations, the limitations of dialogue, and the dialogical structure of expression and human relationships based on the Philosophy of Martin Buber. It includes a philosophical analysis of the dialogical principle and the application of its insights to the problems of human living and knowing.

PHI 4321 Topics in the Philosophy of Mind (3). This course will examine in detail selected issues in the philosophy of mind. Possible topics include the nature and value of the passions, self and self-deception, theory of action, etc. May be repeated. Prerequisite: Instructor's permission or PHI 3320.

PHI 4630 Contemporary Ethical Issues (3). After a review of basic questions regarding ethics, this course considers special ethical problems in contemporary society from the perspective of one or more philosophers or systems of ethics. Topics will be selected and announced in advance.

PHI 4633 Biomedical Ethics (3). After examining the foundations of ethics, this course will consider the human and ethical dimensions of current issues in the life sciences, such as the meaning of human living and suffering, ethics of genetic control, death and dying, personal responsibility in the medical and counseling professions.

PHI 4882 Philosophy in Literature (3). Philosophical implications of selected works and the impact of philosophical concepts such as the self, death, identity, alienation, responsibility, freedom, and the absurd.

PHI 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of instructor.

PHI 4930 Special Topics (3). In-depth study of topics of special interest in philosophy.

PHI 4935 Philosophy Seminar (3). This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more faculty members. The specific topic will be selected and announced in advance. The number of participants will be limited.

PHI 5934 Special Topics (3). Topics will be selected to meet the academic needs of groups of students.

PHM 3040 Philosophical Anthropology (3). This course attempts to interpret philosophically scientific perspectives concerning the nature of man and of the human condition. It seeks to elucidate the basic qualities that make man what he is and distinguish him from other beings.

PHM 3200 Social and Political Philosophy (3). The nature of society and the state, authority of society and the state over the individual, political obligation, legitimacy of government, and idea of social contract are considered.

PHM 3500 Philosophy of History (3). After exploring the definitions, dimensions and interrelations of philosophy and history, students will examine major philosophies of history. The social responsibility of the historical narrative and the philosophical assumptions of historiographies will be discussed.

PHM 4020 Love and Sexuality (3). This course analyzes the nature and meaning of love and sexuality, and studies the basic problems in human sexual living, such as love and the man-woman relationship, the formation of sexual union, and attitudes toward love and sexuality in contemporary society.

PHM 4050 Philosophy of Death (3). This course analyzes the meaning of death and man's attitude towards death and the dying. It examines how philosophy can share in the new confrontation between man and his death, and shows the ways philosophical thinking contributes to the discovery of an authentic attitude towards the phenomenon of death as part of human living.

PHM 4123 Philosophy and Feminism (3). This course will focus on the basic philosophical dimensions that must be included in any full understanding of feminine being as reality and experience. Topics will include ethical issues such as oppression of women and sexism in language and behavior.

PHM 4400 Philosophy of Law (3). After an analysis of the nature of law and judicial reasoning in the light of fundamental alternative interpretations, basic topics of legal philosophy will be considered, such as freedom and rights, responsibility and punishment, rule of law and civil disobedience, legality and justice.

PHP 3840 Chinese and Japanese Philosophy (3). Metaphysical and ethical theories of the three main philosophical systems of China, namely, Classical and neo-Confucianism, Taoism, and Chinese Buddhism are examined. For Japanese philosophy, Shintoism is included.

PHP 4510 Marxism (3). This course examines the philosophic insights of Marx and the main trends (anthropological, social, existential) in contemporary Marxism. It includes an analysis of the Marxist interpretation of alienation, work, and human authenticity.

PHP 4782 Phenomenology (3). This course analyzes the method, the basic philosophical insights and the applications of 20th century phenomenology. It includes the phenomenological analysis of knowing as well as basic questions regarding the nature of reality together with the study of fundamental texts from Husserl, Heidegger, and Merleau-Ponty.

PHP 4784 Analytic Philosophy (3). This course examines the 20th century Anglo-American tradition of approaching philosophic problems by the methods of linguistic analysis. It will include study of techniques of linguistic analysis and an evaluation of their adequacy in dealing with meaning and truth, the mind-body problem, and free will.

PHP 4786 Existentialism (3). This course examines the origin, basic philosophical insights, and influence of the mainstreams of modern existentialism. It includes the study of fundamental texts of Kierkegaard, Nietzsche, Sartre, Jaspers, and Camus.

Physics

Stephan L. Mintz, *Professor and Chairperson*
Richard A. Bone, *Associate Professor*
Rudolf Fiebig, *Associate Professor*
Bernard Gerstman, *Assistant Professor*
Kenneth Hardy, *Professor*
Oren Maxwell, *Assistant Professor*
John W. Sheldon, *Professor*
Yesim Darici, *Assistant Professor*

Degree: **Bachelor of Science**

This program prepares students for careers as professional physicists in industry, government, or graduate study in physics, engineering, or material science. It also prepares students for teaching careers. Students interested in teacher certification should contact the College of Education.

Lower Division Preparation
Required Courses: Algebra and trigonometry (advanced high school courses in algebra and trigonometry are acceptable); one year of general chemistry, differential and integral calculus, and physics with calculus including lab. These courses may be taken at the University if not completed at the lower division.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)

PHY 3123, PHY 3124 Modern Physics	6
PHY 3503 (CHM 3410) Thermodynamics	3
PHY 4221, PHY 4222 Mechanics	6
PHY 4323, PHY 4324 Electromagnetism	6
PHY 4604, PHY 4605 Quantum Mechanics	6
PHY 4810L, PHY 4811L, PHY 4812L Senior Physics Lab	3
PHY 4905, PHY 4906, PHY 4907 Independent Study	3
PHY 4921 Synopsis of Undergraduate Physics	1
Approved electives in experimental or theoretical physics	6
MAC 3313 Multivariable Calculus	3
MAP 3302 Differential Equations	3
Electives	14

Minor in Physics
This program is designed for the students who desire additional capabilities in physics beyond the basic sequence. This program is especially recommended for chemistry, mathematics, and engineering/technology majors.

PHY 3048, PHY 3049 Physics with Calculus	10
PHY 3048L, PHY 3049L Physics with Calculus Lab	2
PHY 3123, PHY 3124 Modern Physics	6
Additional approved courses	6

Master of Science in Physics
The Master of Science in Physics is a 45 semester hour program consisting of coursework at the 5000 and 6000 level and research with one of the departmental research groups culminating in a master's thesis. Students entering the program must have a bachelor's degree or equivalent coursework in Physics.

Required Courses:

PHY 5115	Mathematical Physics I	3
PHY 5116	Mathematical Physics II	3
PHY 5240	Advanced Classical Mechanics	3
PHY 5346	Advanced Electromagnetic Theory I	3
PHY 5347	Advanced Electromagnetic Theory II	3
PHY 6645	Advanced Quantum Mechanics I	3
PHY 6646	Advanced Quantum Mechanics II	3
PHY 6524	Statistical Physics	3

In addition, six semester hours of specialized coursework are required in the student's area of specialization and 15 hours of thesis work.

Cooperative Education
Students seeking the baccalaureate degree in physics may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends several semesters fully employed in an industrial or governmental physics laboratory. For further information consult the Department of Physics or the Department of Cooperative Education.

Course Descriptions

Definition of Prefixes
AST—Astronomy; PHS—Physics/Specialized; PHY—Physics; PHZ—Physics; PSC—Physical Sciences; ENU—Nuclear Engineering.

AST 2200 Modern Astronomy (3). The structure and evolution of our solar system is studied with particular emphasis on physical concepts. Topics will include astronomical coordinate systems, celestial mechanics, the earth's motions, and a description of the solar system. Prerequisites: College algebra and geometry.

AST 2200L Modern Astronomy Laboratory (1). Laboratory section of AST 2200. A study of astronomical objects visible from Miami: stars, constellations, planets, binary stars, star clusters, variable stars, and nebulae. Corequisite: AST 2200.

AST 3213 Modern Astrophysics (3). An introduction to the structure of stars and galaxies and the evolution of the universe as a whole. Topics will include atomic spectra, stellar classifications, galactic structure, and cosmology. Prerequisites: PHY 3048, 3049.

ENU 4101 Introduction to Nuclear Reactors (3). An elementary course in nuclear fission reactor theory and power plant operation. An overview of the relevant nuclear processes and their application to reactor design. Prerequisites: PHY 3048, 3049.

PHS 4303 Nuclear Physics (3). A treatment of the current state of the nuclear theory problem and a discussion of modern experimental methods. Prerequisites: PHY 3123, 3124.

PHS 5404 Solid State Physics (3). Crystalline form of solids, lattice dynamics, metals, insulators, semi-conductors, and dielectric materials. Prerequisites: PHY 3048, 3049, CHM 1045, 1046, and PHY 3124 or CHM 3411.

PHY 2023 Survey of General Physics (3). Units, quantities,Newton's laws, work, momentum, fluids, heat, gas laws, waves, charge and current, electric fields, circuits, light, atomic and nuclear physics. Prerequisites: Algebra, trigonometry (high school).

PHY 3048, PHY 3049 Physics with Calculus (5,5). Basic physics with calculus sequence. PHY 3048 will cover kinematics, Newton's Laws, conservation laws, gravitation, fluids, sound, and thermodynamics. Prerequisite: MAC 3311. Pre or Co-requisite: MAC 3312. PHY 3049 will cover electricity and magnetism, field theory, geometrical, and wave optics.

PHY 3048L, PHY 3049L General Physics Laboratory I, II (1,1). Laboratory sections of PHY 3048, 3049, PHY 3053, 3054. Prerequisites or Corequisites: PHY 3048, PHY 3049, PHY 3053, PHY 3054.

PHY 3053, PHY 3054 Physics without Calculus (4,4). A general introductory course using a non-calculus approach. PHY 3053 covers kinematics. Newtonian mechanics, properties of fluids, thermodynamics, and wave motion. PHY 3054 covers electricity and magnetism, geometrical and wave optics and the structure of matter. Prerequisites: College algebra, trigonometry, and analytic geometry.

PHY 3123, PHY 3124 Modern Physics (3,3). Recent developments in physics are discussed. Subject matter includes: review of classical physics, special relativity, four-vectors, wave-particle duality, the hydrogen atom, many electron atoms, nuclear instrumentation, nuclear structure, nuclear reactions, elementary particles, introduction to quantum mechanics, and solid state physics. Prerequisites: PHY 3048, 3049.

PHY 3424 Optics (3). General formulation of geometrical optics including matrix techniques, interference phenomena, and the theory of Fraunhofer and Fresnel diffraction are among the topics covered. Prerequisites: PHY 3048, 3049.

PHY 3503 Thermodynamics (3). Fundamental principles of thermodynamics, the first, second, and third laws, free energy, entropy, the chemical potential, phase rule and its applications. Prerequisites: PHY 3048, 3049, CHM 1045, 1046.

PHY 3772 Electronics (3). Solid state theory and the theory of circuits, circuit operation and design in lecture and laboratory sessions. Prerequisites: PHY 3048, 3049.

PHY 3949, PHY 4949 Cooperative Education in Physics (3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-Op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student.

PHY 4221 PHY 4222 Intermediate Classical Mechanics I & II (3,3). Laws of motion, statics of particles and rigid bodies, motion of particles in one, two, and three dimensions, systems of particles, rigid bodies in a plane, central forces. Accelerated reference systems, rigid body in three dimensions, generalized coordinates, Lagrangian and Hamiltonian formulations of mechanics, vibrating systems, and normal coordinates. Prerequisites: MAC 3313, PHY 3048, 3049.

PHY 4323, PHY 4324 Intermediate Electromagnetism I and II (3,3). The theory of electromagnetic fields and waves is developed from basic principles. Vector calculus, Coulomb's law, Gauss's Law, electrostatic potential, dielectrics, solutions to Laplace's and Poisson's equations, magnetic induction, vector potential, dielectrics, solutions to Laplace's equations magnetic materials, Maxwell's equations and propagation of waves in space and various media are discussed. Prerequisites: MAC 3313, PHY 3048 and 3049.

PHY 4513 Statistical Thermodynamics (3). Review of the fundamental laws of thermodynamics applied to simple systems. Elementary kinetic theory of gases applied to diffusion, viscosity, thermal and electrical conductivity. Boltzmann, Fermi-Dirac and Bose-Einstein distribution functions applied in the Boltzmann limit to the calculation of thermodynamic variables. Prerequisites: MAC 3313, PHY 3048, 3049.

PHY 4604 Quantum Mechanics I (3). A comprehensive introduction to quantum mechanics. Wave mechanics applied to standard one dimensional problems and the hydrogen atom. Prerequisites: MAP 3302, PHY 3048, PHY 3049.

PHY 4605 Quantum Mechanics II (3). General matrix formalism, momentum, symmetries, perturbation theory and variational methods, an introduction to relativistic theory and theory of fields. Prerequisite: PHY 4604.

PHY 4752L Introduction to Scientific Instrumentation (3). The student learns to set up and operate such standard pieces of laboratory apparatus as bridges, amplifiers, oscilloscopes, frequency counters, flowmeters, and thermocouple circuits utilizing chart recorders. A background in general physics is required.

PHY 4810L, PHY 4811L, PHY 4812L Senior Physics Lab (3). Advanced laboratory topics are treated. Modem physics laboratory equipment is used and the student is introduced to current laboratory practice. Prerequisites: PHY 3048 and 3049.

PHY 4905, PHY 4906, PHY 4907 Independent Study (3). The student works under the supervision of a faculty member on subject matter of mutual interest. Instructor's permission is required.

PHY 4921 Synopsis of Undergraduate Physics (1). A comprehensive review of undergraduate physics given in seminar form on subjects of special interest to the students attending. For seniors only.

PHY 4936, PHY 4937, PHY 4938 Special Topics (VAR). A study of topics of special physics interest.

PHY 5115 Mathematical Physics I (3). Methods of solution for problems in mathematical physics: Variational principles, complex variables, partial differential equations, integral equations, and transforms. Prerequisites: MAC 3313, MAP 3302.

PHY 5116 Mathematical Physics II (3). Additional solution methods in mathematical physics: Perturbation methods, Laplace's and Poisson's Equations, waves, special functions, vector fields, vector waves. Prerequisite: PHY 5115.

PHY 5240 Advanced Classical Mechanics (3). Advanced formulations of the equations of motion and their applications: the central field problem, rigid body dynamics, oscillations and continuous systems. Prerequisite: PHY 4222.

PHY 5346 Advanced Electromagnetic Theory I (3). Advanced treatment of classical electromagnetism: Electrostatics, Green's function, Laplace's equation, multipole expansion, magnetostatics, Maxwell's equations, waves. Prerequisite: PHY 4324.

PHY 5347 Advanced Electromagnetic Theory II (3). Additional topics in classical electromagnetism: Wave guides, radiating and diffracting systems, Kirchoff's integral for diffraction, covariant formulation of field equations. Prerequisite: PHY 5346.

PHY 5910 Physics Research (1-10). Students participate in an original investigation in theoretical or experimental physics under direct faculty supervision. Repeatable. Prerequisite: Permission of Department.

PHY 5930 Seminar in Theoretical Physics (3). The theoretical foundation of classical mechanics, relativity, fields, quantum mechanics, group theory, and relativity. Prerequisites: PHY 3123, 3124, PHY 4221, 4222.

PHY 5936, PHY 5937, PHY 5938 Seminar in Special Topics (3). Seminar work under the supervision of a faculty member on subject material of mutual interest.

PHY 6255 Molecular Biophysics (3). The use of theoretical physics techniques to investigate biological systems: Protein structure and dynamics, electron tunneling, nuclear tunneling, hemoglobin, photosynthesis, vision. Prerequisite: PHY 6645.

PHY 6524 Statistical Physics (3). Fundamental principles of statistical mechanics; fluctuations, noise and irreversible thermodynamics; kinetic methods and transport theory. Prerequisites: PHY 3503, PHY 4222.

PHY 6645 Advanced Quantum Mechanics I (3). Advanced topics in quantum mechanics: Quantized systems, relativistic quantum mechanics, potential scattering. Prerequisite: PHY 4605.

PHY 6646 Advanced Quantum Mechanics II (3). Additional topics in advanced quantum mechanics: Collision theory, symmetry transformations, conservation laws, group theory. Prerequisite: PHY 6645.

PHY 6651 Quantum Scattering Theory I (3). The investigation of atomic and electronic scattering processes: Potential scattering, long range potentials, electron-atom collisions. Prerequisite: PHY 6645.

PHY 6652 Quantum Scattering Theory II (3). The mathematical investigation of scattering processes: Auto-ionization, fast vs. slow collisions, Regge poles, S and T matrices. Prerequisite: PHY 6651.

PHY 6668 Relativistic Quantum Field Theory I (3). Introduction to relativistic quantum fields: General formalism, Klein-Gordon field, Dirac field, vector fields, interacting fields, CPT theorem, reduction formulae, gauge theory. Prerequisite: PHY 6646.

PHY 6669 Relativistic Quantum Field II (3). Additional topics in relativistic quantum fields: perturbation theory, U matrix, Wick's theorem, dispersion relations, renormalization, Ward identity, renormalization group, path integral formalism. Prerequisite: PHY 6668.

PHY 6675 Quantum Theory of Many Particle Systems I (3). An introduction to the physics of many particle systems: Second quantization, Fock spaces, Boson and Fermion symmetry, Gell-Mann-Low theorem, diagrammatic expansions, Goldstone theorem. Prerequisite: PHY 6646.

PHY 6676 Quantum Theory of Many Particle Systems II (3). Additional topics in the physics of many particle systems: Fermi gas, Bose condensation, Hartree-Fock approximation, random phase approximation, finite temperature formalism, hadrons. Prerequisite: PHY 6675.

PHY 6970 Thesis Research (1-10). Research toward completion of Master's Thesis. Repeatable. Prerequisite: Permission of Department.

PHY 6971 Master's Thesis (3). Theoretical and/or experimental research leading to thesis. Prerequisite: Permission of major professor.

PHY 7980 Dissertation Research (1-9). Students conduct dissertation research at the doctoral level in theoretical or experimental physics under faculty supervision. Prerequisite: Permission of instructor.

PHZ 4710 Introduction to Biophysics (3). Physical investigation of biological molecules with special reference to structure and function of protein, biomembranes and visual receptors. Prerequisite: PHY 3124 or CHM 3411.

PHZ 5130 Theoretical Treatment of Experimental Data (3). Statistical analysis of physical processes and statistical tests, with particular emphasis on instrumentation-related problems. Mathematical modeling and computer simulation. Prerequisite: Undergraduate statistics course, or equivalent, or permission of instructor.

PHZ 5234 Atomic and Molecular Collision Phenomena (3). Investigation of atomic and molecular collision phenomena: Kinetic theory, elastic scattering, inelastic scattering, excitation and ionization, heavy particle collisions. Prerequisites: PHY 4605 and PHY 4222.

PHZ 5505 Low Energy Plasma Physics (3). The investigation of the kinetics of rarefied gases and thermal plasmas: Phase space, random currents, orbit theory, plasma sheaths, radiation, the pinch effect. Prerequisites: PHY 3503, PHY 4324, and PHY 4222.

PHZ 5606 Special Relativity (3). A detailed study of special relativity: Lorentz transformations, relativistic electrodynamics. Prerequisite: PHY 3124.

PHZ 6326 Low Energy Nuclear Physics I (3). Introduction to the physics of nuclei and nuclear processes: Nuclear forces, scattering processes and nuclear models. Prerequisite: PHY 4605.

PHZ 6327 Low Energy Nuclear Physics II (3). Additional topics in nuclear physics: The shell and collective models, nuclear reactions and applications, scattering theory, entrance channel phenomena, rearrangement collision and breakup reactions. Prerequisite: PHZ 6326.

PHZ 6354 Introduction to Particle Physics (3). An introduction to modern particle theory: Elementary field theory, symmetries, quantum electrodynamics, quark-parton model, quantum chromodynamics, Weinberg-Salam model. Prerequisite: PHY 6646.

Political Science

John Stack, *Professor and Chairperson*
Bruce Detwiler, *Assistant Professor*
Eduardo Gamarra, *Assistant Professor*
Joel Gottlieb, *Associate Professor*
Antonio Jorge, *Professor*
Dario Moreno, *Assistant Professor*
Brian Nelson, *Associate Professor*
Mark Rosenberg, *Associate Professor*
Cheryl Rubenberg, *Associate Professor*
Rebecca Salokar, *Visiting Instructor*
Judith H. Stiehm, *Professor and Provost*
Mary Volcansek, *Professor*
Christopher Warren, *Associate Professor*

Degree: **Bachelor of Arts**

The major in Political Science provides students the opportunity to acquire a broad education that will equip them to adapt to a wide variety of careers. The program for majors is designed to encourage the analysis of theories, institutions, and processes of political systems in the context provided by the social sciences; to stimulate a grasp of the broad sweep of political science as a discipline; to develop a continuing and responsible interest in political activity and public affairs to provide the opportunity to acquire a fundamental understanding of political science as a basis for citizenship, a career in government, or professional study and service; and to stimulate the qualified student's interest in graduate study in political science.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

If a student has completed a minimum of 18 semester hours of general education credits, it is still possible to be accepted into this program. However, the general education deficiencies need to be completed prior to graduation from the University. Listed below are the required and recommended courses to enter this upper division major:

Required Courses	
American Government	3
Recommended Courses	
State and Local Government	3
International Relations	3
American or World History	6
Economics	3
Introduction to Logic	3
Advanced Composition	3
Mathematics or Statistics	3

Remarks: The American Government requirement may be fulfilled by taking either POS 2042 or POS 3044 at entrance to the University, concurrently if desired, with other requirements of the major. Neither POS 3044 nor POS 2042 will fulfill either the breadth or depth requirements of the major.

Upper Division Program

In Political Science, specific courses are not required. Rather, courses are chosen freely but must be distributed in the following manner:

1. Breadth Requirements: One course in each of the following fields:

American Politics (AP)

PAD 3003	The Administrative Process	3
POS 3153	Urban Politics	3
POS 3413	The Presidency	3
POS 3424	The Legislative Process	3
POS 3453	Political Parties	3

Judicial Politics (JP)

POS 3283	The Judicial Process	3
POS 3603	Constitutional Law: Powers	3
POS 3604	Constitutional Law: Limits	3

Comparative Politics (CP)

CPO 3055	Authoritarian Politics	3
CPO 3103	Government and Politics	

	of Western Europe	3
CPO 3304	Latin American Politics	3
CPO 3502	Government and Politics of the Far East	3
CPO 3643	Government and Politics of the Soviet Union and Eastern Europe	3

International Politics (IP)

INR 3002	Dynamics of World Politics	3
INR 3102	American Foreign Policy	3

Political Theory and Methodology (PT)

POT 3013	Ancient and Medieval Political Theory	3
POT 3054	Modern Political Theory I	3
POT 3055	Modern Political Theory II	3
POT 3064	Contemporary Political Theory	3
POT 3104	American Political Thought	3
POT 3302	Political Ideologies	3

2. Depth Requirements: Three courses in any one of these three areas of concentration, in addition to two courses in any area of concentration.

a. American/Judicial Politics (AP, JP): Courses chosen may be all 'AP' or 'JP' or a mix of both.

b. Comparative/International Politics (CP,IP): Courses chosen may be all 'CP' or 'IP' or a mix of both.

c. Political Theory (PT).

3. Electives: The remaining courses necessary to complete the B.A. requirements may be taken outside the major but are normally chosen to complement the student's academic and career interests.

Minor in Political Science

1. No required courses, but note that POS 3044 will not count toward the minor.

2. Minimum of five courses in Political Science.

3. Maximum of one course each in Political Science internships and independent studies may apply to the 5 course requirement.

Pre-Law Students

The Department of Political Science recognizes the interests and needs of the Political Science major who plans to attend law school. The basic skills important to a pre-law student include: (1) thinking logically, (2) reading intelligently, and (3) expressing oneself clearly. Beyond these basic skills, the department encourages the student to acquire a broad background in political science, rather than to select only courses which deal with public law. Thus the requirements for the major allow the pre-law student to develop a wide comprehension of five major areas within political science and then to achieve greater depth of understanding in one broad area. For most pre-law students, that area may be American and judicial politics. The Department will counsel a student on pre-law school concerns and preparation, as an integral part of the Department's overall advising program. In addition, special opportunities will be available to a student who is interested in participating in judicial internships.

Internships: The Department provides the student with opportunities for work-study experiences in governmental and non-governmental agencies. Five categories of internships are available to students: (1) judicial internships, (2) administrative internships, (3) legislative internships, (4) campaign internships, and (5) international internships. Standards for enrollment as an intern student include:

1. Enrollment is by permission of instructor only. A student wishing to enroll as a public affairs intern should consult with the appropriate faculty members and receive written permission to enroll. Ordinarily, specified courses must be taken prior to or concurrent with the internship.

2. A political science major may count a maximum of six credit hours in internships toward his major. Three additional hours may be counted as electives for a maximum of nine credit hours in internship in political science.

3. All public affairs internships in political science will be on a 'Credit-No Credit' basis. For further information, contact the Department of Political Science.

Upper Division Transfer Credit: As a general rule, students will receive transfer credits for junior and senior level courses in political science with a grade of 'C' or higher. These courses may then be applied to the 30 credit hours requirement for majors in political science.

Major Advising Program: All new majors meet with the Department Chairperson prior to being assigned an advisor. All advisors are members of the political science faculty and meet with students on a regular basis to discuss program design and scheduling matters.

Course Descriptions

Definition of Prefixes

CPO—Comparative Politics; INR—International Relations; PAD—Public Administration; POS—Political Science; POT—Political Theory; PUP Public Policy.

CPO 3001 Introduction to Comparative Politics (3). Using a country approach focusing on the Soviet Union, China, Egypt, Israel, and Britain, will analyze differences and similarities among these systems. Stress on state building, development, institutions, patterns of political interaction, and comparative elites.

CPO 3055 Authoritarian Politics (CP) (3). The purpose of this course is to identify the conceptual and empirical characteristics of authoritarian regimes. An ideal typical authoritarian regime will be established, followed by case study analyses of modern authoritarian systems, like those of Brazil, Mexico, and Portugal. The course is designed to analyze the circumstances giving rise to non-totalitarian modern dictatorships, their political dynamics, and their survival capability.

CPO 3103 Government and Politics of Western Europe (CP) (3). Studies of political systems of the major European countries on a comparative basis. Attention is focused on such factors as political party systems, the cabinet form of government, and the politics of the Common Market. Considers the implications of the impact of mass society on these nations. Enables the students to better understand the nations which have supplied many of the theoretical foundations of modern politics.

CPO 3304 Latin American Politics (CP,PT) (3). This course analyzes the multiple structures, processes, and groups which are relevant to an understanding of Latin American political economy. Of special interest are the political impacts of land and wealth inequality and economic dependency. The dynamics of Latin American politics are considered, with an emphasis on the role of the military and the church. Alternate strategies for modernizing the region are considered.

CPO 3340 Politics of Mexico (CP) (3). This course analyzes the structure and process of the Mexican political system from four perspectives: 1) Mexico's revolutionary heritage; 2) its formal governmental structure; 3) formal political relations; and 4) the structure and process of Mexican political economy.

CPO 3401 The Arab-Israeli Conflict (CP/IP) (3). This course provides the student with an introduction to the political roots of the Middle East conflict, and examines the dilemmas of finding a solution by focusing on the domestic and international constraints imposed upon the major actors.

CPO 3403 Politics of the Middle East (3). This course will focus on the social, cultural, and political aspects of the Middle East region. Through an understanding and an interweaving of these complex facets, a student should gain a foundation and background for comprehension of the contemporary conflict which pervades this mercurial region.

CPO 3502 Government and Politics of Far East (CP) (3). An intensive examination of the major political institutions of China, Japan, and Korea. A critical analysis of changing aspects of traditional relationships in Far Eastern political culture and major reform movements in contemporary Far Eastern politics. Allows the student to better understand nations whose political development will be an important factor in global development.

CPO 3541 Government and Politics of China (CP) (3). This course introduces students to China's political history from 1840-1982, and analyzes politics in the People's Republic of China with special emphasis on political and economic development, socio-economic and political conflict, ideology, and foreign policy.

CPO 3643 Government and Politics of the Soviet Union and Eastern Europe (CP) (3). An intensive examination of the political structures and institutions of the Soviet Union and East European Communist states. Particular attention is paid to the historical and cultural underpinnings of the Soviet regime. The role of the Marxist-Leninist ideology in shaping policy processes and content is given careful analysis.

CPO 4002 Theory in Comparative Politics (CP) (3). This course introduces students to research strategies, concepts, and theories of comparative politics. There will be a focus on the three predominant types of modern political systems (democracy, authoritarianism, and totalitarianism), followed by an examination of the current theoretical approaches to studying cross-national political behavior.

CPO 4005 Topics in Comparative Politics (CP) (VAR). An intensive examination of selected political topics from a cross-national point of view. The subjects will vary, depending upon the desire of both students and faculty. Allows the student to choose topics of particular interest to him or her.

CPO 4034 The Politics of Development and Underdevelopment (CP/IP) (3). This course is an analysis of the causes of development and underdevelopment in Third and Fourth World countries. It includes an analysis of major theoretical approaches to understanding development problems, as well as an analysis of the roles of major national and non-national actors.

CPO 4053 Political Repression and Human Rights (CP) (3). Examination of domestic factors resulting in political repression and violations of human rights. American, European, and South American examples will be used.

CPO 4063 Comparative Socialist Systems (CP) (3). Differences and similarities among socialist countries are explored and explained. Focus on China, Soviet Union, Yugoslavia, and Cuba. Stress development, ideology, change, structures, the Party, control, and foreign policy.

CPO 4072 Comparative Electoral Behavior (CP) (3). Public opinion, voting choice, and electoral patterns from a comparative and historical perspective. Attention will focus on West Europe and Latin America. Differences from North American trends and patterns will also be detailed.

CPO 4303 Government and Politics of South America (CP) (3). A cross-national discussion of the political systems and cultures of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of the military and to the problem of violence. Designed to give the student an overview of the political life of the nations with whom we share this hemisphere.

CPO 4323 Government and Politics of the Caribbean (CP) (3). Studies the political system of the major British, French, Dutch, and Spanish areas in the Caribbean basin. Attention is focused on such factors as political party democracies in a non- industrial setting. The paradoxes between modernity and tradition throughout the developing Caribbean, and the relationship between politics, economics, and culture are discussed. The student is helped to understand the dynamics of change in an important area of the world and to compare those dynamics with change in his own country.

CPO 4333 Central American Politics (CP) (3). This course analyzes the historical and contemporary political dynamics of the five countries of Central America. Special attention is given to problems of development and modernization within the context of the region's economic dependence on the United States. Special attention is given to the problem of political restraints on the modernization process and to those regional arrangements which have been created to solve the area's problems. The student will develop a better understanding of a region which has close ties to the United States.

CPO 4360 Cuban Politics (CP) (3). Examines the course of twentieth century Cuban politics. The course is subdivided into five parts covering the three periods of relatively stable politics and the two major revolutions.

CPO 5035 Politics of Development (5). This course examines divergent explanations for development and underdevelopment. Of central importance are the concepts and theories which emphasize the political dimensions of development, including theory and concept, processes of development, and actors in the development process.

CPO 5935 Topics in Comparative Politics (3). An intensive examination of selected political topics from a cross-national point of view. The subjects will vary, depending upon the desire of both students and faculty. Allows the student to choose topics of particular interest to him or her.

CPO 6936 Seminar in Comparative Politics (3). Graduate seminar on special topic in comparative politics. Topic to be announced in advance.

INR 3002 Dynamics of World Politics (IP) (3). An examination of the political forces which shape the actors, institutions, and processes of world politics. Special attention is given to the role of transnational forces.

INR 3102 American Foreign Policy (IP, AP) (3). An examination of the legal, administrative, and political structure by which American foreign policies are formulated and implemented. Includes a discussion of the objectives and consequences of United States foreign policy in selected regional, social-economic, and ideological areas. Enables the student to understand the procedures by which foreign policy is made and implemented in the United States.

INR 3403 International Law (IP,JP) (3). The law of nations, including the laws of war. Includes a discussion of the development of legal norms applicable to the international arena, from both Western and non-Western perspectives. Examines the emerging body of transnational law in social, economic, and technological areas of international relations. Enables the student to understand the difficulties involved in maintaining world peace.

INR 4084 Ethnicity in World Politics (IP) (3). This course examines the political dimensions of ethnic conflict from a comparative perspective. It evaluates the dynamics of ethnic conflict in Western Europe, Africa, Latin America, and the United States, through a series of case studies.

INR 4204 Comparative Foreign Policy (CP,IP) (3). This course is an analysis of the development of the foreign policy-making process in the United States, Britain, France, West Germany, and Italy. Particular attention is directed to the domestic and international factors which affect the making of foreign policy.

INR 4244 Latin American in World Politics (CP, IP) (3). This course will be primarily concerned with Latin America's role in the world political system. Of special interest will be the impact of the North- South split on Latin America, and in particular Latin America's relationship to the United States. Key issues of international politics concerning Latin America, including the Panama Canal, will be selected for study.

INR 4407 Political Foundations of International Law (IP,JP) (3). An examination of the interaction between politics and international law, with particular emphasis on such interaction during the present century. The role of international institutions in the modifying of existing international law concepts and the developing of such concepts is also examined.

INR 4501 Multinational Organizations (IP) (3). The course examines contemporary international politics through an analysis of intergovernmental and non-governmental actors. It emphasizes the prominent role played by increasing levels of transnational relations, interdependence, and global dominance in world politics.

INR 4931 Topics in International Relations (IP) (VAR). An intensive examination of selected topics with an international dimension. Subjects will vary, depending upon the desires of both students and faculty. Allows the student to choose topics of particular interest to him or her.

INR 4932 Topics in the Politics of International Law (IR) (1-3). An examination of selected topics in international law. Subjects will vary (including, for instance, the political dimension of international law) depending upon the desires of both students and faculty. Allows the student to choose topics of particular interest to him or her.

INR 4942 International Internship (VAR). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between student and advisor.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5414 Topics in International Law (3). An intensive examination of the political dimensions of international law in the context of rapidly changing global political relations.

INR 5933 Topics in International Politics (3). An intensive examination of selected topics with an international dimension. Subjects will vary, depending upon the desires of both students and faculty. Allows the student to choose topics of particular interest to him or her.

INR 6007 Seminar in International Politics (3). Graduate seminar on special topic in international politics. Topic to be announced in advance.

INR 6205 World Politics (3). This course provides graduate students with an understanding of the major conceptual approaches to world politics. It emphasizes the analysis of significant actors, institutions, and processes at work in the contemporary global system as well as possible future alternatives.

INR 6939 Seminar in International Law (3). Allows for specialized and topical offerings by regular and visiting faculty. Also permits experimental courses.

PAD 3003 The Administrative Process (AP) (3). An introduction to the political environment of administrative decision-making in public agencies. Special emphasis is placed upon the politic of budgeting, personnel management, organizational requirements, and policy making.

PAD 4944 Administrative Internship (VAR). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between student and advisor.

POS 2042 American Government (3). Power distribution and policy-making in U.S. Topics include political change; role of majorities; minorities; media, elections in U.S. politics; national institutions; and Florida state and local government.

POS 3044 Government and Politics of the U.S. (AP) (3). An examination of the formal and informal linkages between the private and public sectors and the sets of relationships which govern each. Particular attention is devoted to the exploration of the political role of business and the close but uneasy relationship between private enterprise and democracy.

POS 3071 Corporate Power and American Politics (3). An examination of the origin and development, structure and operation of the Government of the United States, with an emphasis on the characteristics and political consequences of federalism. Allows the student to develop a better understanding of the political system in which he or she lives.

POS 3153 Urban Politics (AP) (3). An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is placed on how urban problems are identified; and the way proposed solutions are formulated, legitimatized, and administered by urban policy-making processes. Includes a discussion of urban political culture. Enables the student to understand major problems confronting communities in urban areas.

POS 3283 The Judicial Process (JP) (3). An introduction to the study of public law. Examines the relationship between politics and judicial structure and process. Emphasizes the judicial system as a particular kind of policy-making system, and evaluates its strengths and weaknesses from a policy-making perspective.

POS 3413 The Presidency (AP) (3). An examination of the various interpretations of the Presidency. Attention is directed to the role of the President in a technocratic society. Enables the student to understand one of the most visible political institutions.

POS 3424 The Legislative Process (AP) (3). Examines the context and process of legislative decision- making, including the impact of elections, groups, bureaucracies, and the norms of legislative behavior. Evaluates legislatures in light of various theories of representation and conflict- management.

POS 3453 Political Parties (AP) (3). Studies the internal structure, political functions, and behavior of modern political parties. Attention is given to the relationships between political parties and various economic, ethnic, and regional interest. Enables the student to understand the problems of expressing and structuring political demands to facilitate or obstruct governmental decision-making.

POS 3603 Constitutional Law: Powers (JP) (3). An examination of the basic principles of American government, as defined through constitutional law. Focus will be on the nature of the union, federalism national government powers, separation of powers, state government powers, and powers of the respective branches of government.

POS 3604 Constitutional Law: Limitations (JP) (3). An examination of the limitations on government as defined by the Supreme Court through constitutional law. Focus will be on the limitations of government with respect to the rights of the individual, of groups, and of the states. Particular attention will be paid to civil rights, civil liberties, the rights of the accused, political rights, and economic liberties.

POS 3703 Methods of Political Analysis (PT) (3). An introduction to the principal concepts and techniques of data collection and organization in political science. Includes practical exercise in data collection and organization. Highly recommended for those planning graduate study.

POS 3949 Cooperative Education in Political Science (3). A student majoring in Political Science may spend several semesters fully employed in industry or government in a capacity relating to the major.

POS 4122 State Government and Politics (AP) (3). A study of the political processes, structure, and development of state systems. This course attempts to provide the student with an understanding of the basic structure of state government and political processes.

POS 4154 Topics in Urban Politics and Policy (AP) (3). An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is on the ways in which urban problems are identified and proposed solutions formulated, legitimatized, and administered by urban policy-making processes, includes a discussion of urban political culture. Enables the student to understand the major problems confronting communities in urban areas.

POS 4233 Opinion and Electoral Behavior (AP) (3). An examination of the social and psychological factors shaping public opinion and voting choice. Particular attention will be directed to the nature of trends and patterns in electoral results and systemic elements influencing such patterns.

POS 4253 Political Violence and Revolution (CP, PT) (3). An examination of major historical instances and modern expressions of political violence; discussion of revolution from a comparative perspective. Attention will focus on the social origin and political determinants of such events.

POS 4284 Judicial Behavior (JP) (3). An examination of various approaches, theories, and findings on the behavior of judicial actors, particularly as it relates to judicial decision-making. The focus of the course will be on judges, lawyers, prosecutors, and other relevant actors in the judicial process.

POS 4463 Interest Group Politics (AP) (3). An examination of the various types of voluntary associations which seek to influence the political process. Special attention is given to the role of private power in a pluralist system. Enables the student to understand the ambivalent American attitude towards pressure groups and lobbying activities in the legislative and administrative arenas.

POS 4493 Politics of Judicial Administration (JP) (3). This course is designed to examine the process of judicial administration, particularly from the political perspective. The politics of selecting judicial personnel, financing, budgeting, disposition of litigation, reorganization, and inter-governmental relations will be included.

POS 4496 Comparative Judicial Politics (JP, CP) (3). An examination of the various modes of dispute settlement and rule adjudication cross-culturally. Emphasis is on the similarities and differences of judicial behavior, judicial decision-making, judicial recruitment, and judicial powers in cross-national analysis.

POS 4713 The Logic of Data Analysis in Political Science (PT) (3). An introduction to the major concepts employed in the analysis of political data. Emphasis is on the logic of explanation rather than the techniques of such explanation. This is not a course in statistical method. Highly recommended for those planning graduate study.

POS 4905 Independent Study (VAR). By arrangement with the instructor.

POS 4930 Topics in Public Law (3). An examination of selected topics in the field of public law. The subjects will vary depending upon the desires of students and faculty.

POS 4933 Topics in Politics (VAR). Subject matter varies according to instructor.

POS 4935 Honors Seminar (VAR). Subject matter varies according to instructor.

POS 4941 Legislative Internship (AP) (VAR). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between the student and advisor.

POS 4944 Judicial Internship (JP) (VAR). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between the student and advisor.

POS 4949 Cooperative Education in Political Science (3). A student majoring in Political Science may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

POS 5606 Topics in Public Law (JP) (VAR). An intensive examination of selected topics in the field of public law. The subjects will vary depending upon the desires of students and faculty.

POS 5706 Methodology (3). This course is an introduction to the principal concepts and techniques of quantitative and non-quantitative methodology in the Social Sciences. It is designed to familiarize the student with the language and format of quantitative and non-quantitative applications in order to permit students to deal effectively with the literature of the their field.

POS 5909 Independent Study (VAR). By arrangement with instructor.

POS 5932 Topics in Urban Politics. An extensive examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is on the ways in which urban problems are identified and proposed solutions formulated, legitimatized, and administered by urban policy-making processes, includes a discussion of urban political culture. Enables the student to understand the major problems confronting communities in urban areas.

POS 5934 Topics in Politics (VAR). Subject matter varies according to instructor.

POS 6146 Seminar in Urban Politics (VAR). Graduate seminar on special topics in urban politics. Topic to be announced in advance.

POS 6934 Seminar in Politics (VAR). Subject matter varies according to instructor.

POS 6939 Seminar in Public Law (VAR). Graduate seminar on special topic in public law. Topic to be announced in advance.

POS 6976 Thesis (1-6). Requires students to enroll for thesis or dissertation research for at least one credit hour every semester in which they are engaged in such research. Prerequisites: All other coursework for the Master's in International Studies.

POT 2002 Introduction to Political Theory (3). The efforts of six writers - as diverse as Plato and Marx - to address from a political perspective such issues as freedom, justice, the individual and the state, and who should rule, are examined.

POT 3013 Ancient and Medieval Political Theory (PT) (3). A study of the major political philosophers of the ancient and medieval periods. Primary emphasis is given to the Greek experience. The nature of political theory as a tradition of discourse is examined.

POT 3054 Modern Political Theory I (PT) (3). An analysis of the thought of the great political thinkers since Machiavelli, culminating with the nineteenth century theorists. Basic themes and ideas common to all these political theorists will be discussed in detail. The problem of 'modernity' will receive special attention.

POT 3055 Modern Political Theory II (PT) (3). An analysis of the thought of the great political thinkers of the late eighteenth, nineteenth, and early twentieth centuries. Primary emphasis is given to the important nineteenth century theorists such as J. S. Mill, Marx, and de Tocqueville. Their theoretical treatment of such modern political phenomena as the masses, bureaucracy, democracy, liberty, and violence is extensively analyzed.

POT 3064 Contemporary Political Theory (PT) (3). An overview of the major conceptual frameworks used by political theorists to describe, explain, and evaluate political behavior and processes. Stress is placed on political theory, not only as a basis for inquiry, but also as a base for political action. This course enables the student to develop analytical abilities with which to interpret the political events of his or her time.

POT 3204 American Political Thought (PT) (3). An examination of American political thought from its 17th century origins to the contemporary period. The continuities and discontinuities in the development of American political ideas since colonial times will receive special attention.

POT 3302 Political Ideologies (PT) (3). An analysis of modern political ideologies since the French Revolution, including liberalism, conservatism, and socialism. Particular emphasis will be given to Marxism. The contemporary link between ideology and totalitarianism will be examined.

POT 4930 Topics in Political Theory (PT) (VAR). An intensive examination of selected topics dealing with political theory. Subjects will vary, depending upon the desires of students and faculty.

POT 5934 Topics in Political Theory (AP) (VAR). An intensive examination of selected topics dealing with political theory. Subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of particular interest to him or her.

PUP 3004 Public Policy: U.S. (AP) (3). An intensive examination of the theory and practice of formulating, legitimatizing, administering, and evaluating public policy. Includes a discussion of the role of administrators, legislators, courts, interest groups and political parties in their processes. Gives the student an analytical basis for understanding and participating in the making of public policy in a variety of policy areas.

PUP 4203 Environmental Politics and the Law (AP) (3). An analysis of how the political and legal systems are responding to the risks of pollution and the adverse impacts of development on human health and survival and on natural resources, wilderness, wetlands, and wildlife.

PUP 4314 American Ethnic Politics (AP) (3). This course examines American ethnic politics from conceptual and substantive perspectives. Special attention is devoted to the theoretical dynamics of ethnicity as well as an intensive investigation of Irish, Italian, Jewish, and Black ethnic politics.

PUP 4323 Women in Politics (AP) (3). Examines the role of women in the political system as they act within, and are affected by, politics. Special attention to current and enduring political issues which particularly affect women.

PUP 4931 Topics in Public Policy (VAR). An examination of selected topics dealing with public policy. Subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of interests to him or her.

PUP 5934 Topics in Public Policy (VAR). An intensive examination of selected topics

PUP 6007 Seminar in Public Policy (VAR). Graduate seminar on special topic in public policy analysis. Topic to be announced in advance.

URP 4149 Planning and Human Ecology (AP) (3). environmental planning and design utilizing a human ecology perspective. Examines issues of open space planning, urban design, neighborhood planning, and citizen participation.

Psychology

Paul Foos, *Associate Professor and Chairperson*
Margarita Azmitia, *Assistant Professor*
Lorraine Bahrick, *Assistant Professor*
Milton Blum, *Professor*
Brian Cutler, *Assistant Professor*
Marvin Dunn, *Associate Professor*
Joan Erber, *Associate Professor*
Luis Escovar, *Associate Professor and Associate Dean*
Gordon Finley, *Professor*
Ronald Fisher, *Associate Professor*
Arthur Flexser, *Associate Professor*
Scott Fraser, *Assistant Professor*
Jacob Gewirtz, *Professor*
Edward Girden, *Distinguished Professor Emeritus*
Fernando Gonzalez-Reigosa, *Associate Professor*
William Kurtines, *Professor*
Mary Levitt, *Associate Professor*
Gary Moran, *Professor*
Janat Parker, *Associate Professor*
James Rotton, *Associate Professor*
Bernard Saper, *Professor*

Degree: **Bachelor of Arts**

Lower Division Preparation

Required Course: Completion of Introductory Psychology with a grade of 'C' or higher. This requirement can be fulfilled by the completion of PSY 2020 at the University, or with a comparable course from another accredited college or university.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program

The Psychology major requires 35 hours of upper division psychology coursework, including STA 3122. All courses must be taken for a letter grade.

The program has the following three major psychology components and a fourth, general, component for graduation:

I. Specific Required Courses in the Following Sequence: (11 semester hours)

A. Statistics (offered by the Department of Statistics):

STA 3122	Introduction to Statistics	3

Note: STA 3123 and COP 3210 are recommended for students planning to enter graduate school.

B. PSY 3212 Research Methods in Psychology	3
Prerequisites: STA 3122	
C. Advanced laboratory or field experience	5
Prerequisites: STA 3122 and PSY 3212	

Note: Because the three courses in this component of the program must be taken in sequence. The first course (STA 3122) should be taken no later than the first semester of the junior year.

II. Distribution Requirement Courses: (15 semester hours)
To fulfill this requirement component, each student must take one course or a laboratory/field experience from each of the five areas (A-E) listed below.

Lecture Courses	Laboratory/Field Experiences
Area A: Experimental	
EXP 3523	EXP 4214C
EXP 4204	EXP 4404C
EXP 4605	EXP 5005C
PSB 4003	
Area B: Social	
SOP 3004	SOP 4215C
SOP 4522	SOP 4714C
SOP 4525	
SOP 4842	
Area C: Applied	
CYP 3003	CYP 4953
INP 3002	INP 4055C
SOP 4712	SOP 4649
SOP 4645	
Area D: Personality/Abnormal	
CLP 3003	PPE 4325C
CLP 4144	
EXP 3304	
PPE 3003	
Area E: Developmental	
DEP 3001	DEP 4704C
DEP 3402	
DEP 4164	
DEP 4464	

III. Required Psychology Course Electives (9 semester hours): Any psychology course taken for a letter grade can be used to fulfill the requirement for electives.

Note: In some cases a student may fulfill a distribution area requirement with a laboratory course and may not therefore take a lecture course in that area. In such a case, the student must take four (12 hours) elective courses so that the total number of upper division hours for the psychology major reaches the required number of 35 credit hours.

PSY 4693C is especially recommended for students planning to take the psychology specialty part of the Graduate Record Examination.

IV. Electives to Complete the requirement of 60 credit hours: (25 semester hours)

A student may, but is not required to, take additional upper division psychology courses beyond the required 35 hours towards the fulfillment of the 60 upper division credit hours needed for graduation. Students may, with the permission of the instructor, take PSY 4900 and PSY 4916, which are given Pass/Fail grades. These courses can therefore not count in the category of Required Psychology Electives, but they can be used as additional credit towards graduation. There is a College requirement that at least nine hours of elective credit (not including STA 3122) must be outside of Psychology.

Remarks: (1) The student is strongly urged to contact the Psychology Department for advisement in curriculum planning; (2) Limited funds are available through the Psychology Department to students with demonstrated scholastic ability and financial need; (3) Psychology majors are allowed to transfer a maximum of ten upper division semester credit hours toward the psychology degree.

Bachelor's Degree with Honors

Application must be made and departmental approval granted, before the second semester of the junior year, to undertake an independent project which must be approved by and carried out under the supervision of a member of the Department. Upon completion of the study, a satisfactory oral defense of the work must be presented to a Department committee.

Note: The Bachelor's degree offered in this program is a liberal arts degree and not a professional degree. While it is possible to concentrate courses in one's area of interest, it is not possible at the present time to obtain a 'professional specialization' at the undergraduate level in psychology.

Minor in Psychology

A Minor in Psychology requires 15 upper division semester hours of approved psychology credits. Students seeking the minor must meet with a psychology faculty member for advisement and should file with the Psychology Department a written notice of intention to minor in psychology. A grade of 'C' or higher (or 'Pass' if taken under the Pass/Fail option) is required in all courses counted toward the minor.

Master of Science in Psychology

The Masters of Science in Psychology program at the University is designed to train practitioners and researchers who can function in a variety of applied settings. The core curriculum and admission prerequisites are intended to provide students with a base of knowledge in psychology. A distinctive feature of the program is its emphasis on a close working relationship between student and faculty. Under faculty supervision, students are encouraged to develop individually tailored programs of study that reflect both student interests and program strengths.

The curriculum consists of 36 semester hours of graduate study in which the exposures focus specifically on training the student to perform the skills mentioned above. Students are expected to select electives, project/thesis topics, and supervised field experiences that meet not only the degree requirements, but also their academic interest and particular professional objectives. Six of the 36 semester credit hours consist of Master's thesis credits.

Doctor of Philosophy in Psychology

The doctorate program in psychology has a two-fold focus: (1) Child, adolescent, and adult development; (2) aging and the later years. The program emphasizes normal development as well as cross-cultural and urban perspectives on the life span. The program thus focuses on development from childhood to later adulthood in urban and multi-cultural environments. The emphasis is on academic quality and the curriculum is designed to foster a commitment both to basic research and to application as an integral part of the individual student's specialty area development. The curriculum offers a broad background in life-span development psychology while encouraging the development of an area of specialization early in graduate training.

Students are expected to master a series of core-course requirements designed to facilitate a thorough grounding in theory, methodology, and content both in basic and applied research in developmental psychology. In addition, a number of seminars reflecting specialized foci are offered, including advanced seminars in child development, caregiving, gerontological psychology, and cross-cultural psychology. Students are also required to pursue specific areas of interest through independent study with individual faculty members and through apprenticeship with a primary advisor for the purpose of acquiring direct research experience. The Ph.D. program is offered in affiliation with Florida Atlantic University.

Graduate Admission Requirements: The following are in addition to the University's Graduate Admission Requirements:

1. A 3.0 or higher GPA during the last two years as an upper division student or a total score (quantitative plus verbal) of 1,000 or higher on the GRE for the Master's degree and 1100 or higher for the Ph.D. degree, or both. Foreign students whose native language is not English must take the Test of English as a Foreign Language (the TOEFL examination) and obtain a 500 score of higher.
2. The GRE and GPA stated above are only minimum requirements. All applications are reviewed by the Graduate Studies Admission Committee, which makes the final admissions decisions. Since admission to the program is competitive, the committee's requirements are normally higher than the minimum aforementioned standards.

Graduate Admissions Procedures: Applicants must submit the following to the Graduate Studies Admission Committee, Department of Psychology, Florida International University, Miami, Florida 33199:

1. A photocopy of the admission application submitted to the Admissions Office.
2. A brief essay stating the reasons for the interest in the program and career goals.
3. Three letters of recommendation, preferably from previous instructors and/or persons familiar with applicant's academic background.

Applicants to the program who are not psychology majors may be accepted conditionally until they meet the category requirements, listed below, early in their graduate career. A maximum of nine semester hours credit earned in the non-degree seeking student category exclusive of prerequisite undergraduate courses may be applied to graduate degree requirements. The undergraduate course requirements are designed to make certain that students accepted into the graduate program have a broad base of dependable psychological knowledge and acquaintance with the basic methodologies upon which the discipline is founded.

Category A. Satisfactory completion of one psychology laboratory course.

Category B. Satisfactory completion of introductory upper division statistics.

Course Descriptions

Definition of Prefixes

CLP—Clinical Psychology; CYP—Community Psychology; DEP—Developmental Psychology; EAB—Experimental Analysis of Behavior; EDP—Educational Psychology; EXP—Experimental Psychology; INP—Industrial and Applied Psychology; LIN—Linguistics; PCO—Psychology for Counseling; PPE—Psychology of Personality; PSB—Psychobiology; PSY—Psychology; SOC—Sociology; SOP—Social Psychology; SPA—Speech Pathology and Audiology.

CLP 3003 Personal Adjustment (3). Study of personal adjustment in the social and occupational life of the individual. Emphasis on interpersonal aspects of effective behavior.

CLP 4144 Abnormal Psychology (3). Various forms of behavior pathology are examined in the light of traditional and current concepts of mental health and illness. Problems of diagnosis and treatment are discussed. The role of social mores is examined.

CLP 4374 Psychotherapy (3). Current approaches to the treatment and improvement of psychological disorders are critically surveyed. Emphasis is placed on the examination of the various techniques of psychotherapy and behavior therapy. Broader strategies of prevention and mental health promotion, like consultation, counseling, and programmed agency services, are also studied.

CLP 5166 Advanced Abnormal Psychology (3). Advanced study of the causes, psychopathology manifestations, and social and personal consequences of behavior disturbance. Emphasis is placed on the critical examination of current research on the biological, psychological, and social aspects of these disorders. Clinical approaches to diagnosis, course, and prognosis in the contemporary mental health context (including 'practicum' assignments if feasible) are covered.

CLP 5175 Personality Dynamics (3). A review of different approaches to the study of personality dynamics and of the related therapeutic modalities. Special consideration is given to psychoanalysis and neo-analytic psychology. Other therapeutic models which influence current psychological thought are also considered. Prerequisites: Successful completion of a course in theories of personality, or equivalent. Permission of instructor.

CLP 5185 Current Issues in Mental Health (3). A critical, intensive examination of selected, important issues in mental health. Emphasis is given to the empirical study of contemporary problems related to the making of mental patients; planning, programming, and administering mental health services; political, ethical, and legal constraints on the operation of mental health facilities; interdisciplinary cooperation among helping and human service professionals; and evaluation of preventive care and treatment services. Prerequisite: Abnormal Psychology or permission of the instructor.

CLP 6168 Psychopathology Across the Life-Span (3). Exploration of the causes of psychopathology from a life-span developmental orientation and implications for theories of personality. Prerequisites: CLP 5166 and permission of instructor.

CLP 6437 Behavioral Assessment in Childhood (3). Standardized tests and inventories for the behavior assessment of infants, children, and adolescents will be surveyed. Prerequisites: Proseminar courses and second year graduate standing.

CLP 6438 Psychological Assessment (3). Theory, research, and applications of psychological assessment in areas such as interviewing, intellectual and cognitive functioning, and personality testing. May be repeated for credit with different subject matter. Prerequisite: STA 3122 and permission of instructor.

CYP 3003 Introduction to Community Psychology (3). An introduction to the issues and scope of Community Psychology. Students will be exposed to the development of Community Psychology as a growing discipline. Particular emphasis will be placed on the role of the community psychologist as an agent of social change.

CYP 4953 Community Psychology Field Experiences I (5). Students will be organized into task-oriented teams or will work independently in the community, for the purpose of becoming familiar with various community institutions and developing an action plan for assisting institutions in implementing change. Prerequisite: PSY 3212 or STA 3123.

CYP 5534 Groups as Agents of Change (3). Theory and practice in utilizing groups as agents of change or development in communities and organizations. Didactic presentation and structured exercises focus on relevant issues. Students design and implement problem-focused interventions, using class as client system.

CYP 5535 Psychology of Institutional and Social Change (3). A study of the theoretical basis of and strategies applied to the process of effecting social change in community institutions involved in the delivery of human services.

CYP 5954 Community Psychology Field Experiences II (5). Same orientation and description as Field Experience I. Students in this course will be able to pursue their work with community institutions in more depth. Prerequisite: Students enrolled in this course must have completed Community Psychology Field Experiences I.

CYP 6055 Psychological Theories and Research on Acculturation and Multiculturalism (3). A review of theories and research on acculturation and multiculturalism concepts with an emphasis on those models that have generated a substantial body of empirical research. Stress will be placed on the implications of these findings for community stability and disruption as well as the implications for the delivery of human services in multicultural settings.

CYP 6526 Psychological Methods of Program Evaluation (3). Development of skills for the psychological assessment monitoring and evaluation of human service programs with emphasis on the application of basic principles of behavioral science research in the field, exclusive of public school settings.

CYP 6536 Principles and Methods of Psychological Consultation (3). An analysis of the basic psychological approaches underlying consultation, with special emphasis on the practical application of the processes of learning, cognition, and interpersonal relations to techniques of consulting with various 'target' agencies, individual clients, and other professionals in community settings. Prerequisite: Graduate standing at FIU or permission of instructor.

CYP 6766 The Psychology of Crosscultural Sensitization in a Multicultural Context (3). A series of weekly seminars to increase student sensitivity to working with clients from different cultural backgrounds. The objectives of the course are: (1) facilitating student awareness of cultural differences and their impact on social and human services delivery systems, (2) identifying the student's own personal cultural biases and values when interacting with culturally different persons, and (3) teaching students to develop culturally appropriate intervention skills.

CYP 6936 Current Issues in Community Psychology (3). An intensive analysis of contemporary theoretical, practical, and professional aspects of the field of Community Psychology. Topics discussed may lead to the graduate project required of each student. Prerequisite: Admission to graduate study in psychology (other graduate students admitted by permission of instructor).

DEP 3000 Human Growth and Development: Introductory Developmental Psychology (3). An introductory study of the development of personality, intelligence, and motivation, from childhood to adulthood. Emphasis is on development of cognitive systems through social learning. The full life span of human growth and development will be considered.

DEP 3001 Psychology of Infancy and Childhood (3). An introduction to human development focusing on infancy and childhood. Particular attention will be devoted to intellectual, personality, and social development. Consideration will be given to both theoretical and empirical perspectives.

DEP 3115 Development in Infancy: The Basis of Human Knowledge (3). Provides a comprehensive review of current methods, theories, and findings in cognitive and perceptual development in the first year of life. Special emphasis on the bases of knowledge; object and event perception, memory, and imitation. Prerequisites: PSY 2020 and one developmental course, any level recommended.

DEP 3303 Psychology of Adolescence (3). An examination of psychological, sociological and biological factors contributing to the changes from childhood to adolescence, and biological factors contributing to the changes from childhood to adolescence, and from adolescence to young adulthood.

DEP 3402 Psychology of Adulthood (3). The transition from youth to middle age is studied. Focus is on changing roles in family, work, and societal settings, as these factors influence personality and other aspects of psychological function.

DEP 4032 Life-Span Cognitive Development (3). Course covers all facets of cognitive growth, change, and decline from infancy through adulthood, and old age. Prerequisite: Any one of: DEP 3000, DEP 3001, DEP 4164, or DEP 4464.

DEP 4044 Psychology of Moral Development (3). A review of psychological theories and research concerning the development of moral attitudes and behavior.

DEP 4164 Children's Learning (3). Learning in infancy and childhood, with particular emphasis on simple conditioning, discrimination shifts, mediation, transposition, observational, and concept learning. Prerequisite: Students enrolling in this course should have completed successfully at least one prior course in developmental psychology.

DEP 4182 Socio-emotional Development (3). A survey of facts and theories of human social emotional development and social learning in the early years of life. Prerequisite: DEP 3000 or DEP 3001.

DEP 4213 Childhood Psychopathology (3). Various forms of abnormal behavior in infancy, childhood, and adolescence are examined within the context of traditional and contemporary psychological theory. Problems of differential diagnosis and forms of remediation are discussed.

DEP 4464 Psychology of Aging (3). An examination of the factors that contribute to the psychological profile characterizing old age. Biological and sociological components are considered, and their impact on perceptual, cognitive, and personality processes is analyzed.

DEP 4704C Developmental Psychology: Lecture (2) and Laboratory (3) (5). Laboratory/observation exercises illustrative of the concepts and research techniques used in developmental psychology. Particular emphasis is given to cognitive and social-cognitive development. This course is for seniors who have completed PSY 3212, one developmental psychology course, and STA 3122.

DEP 5056 Issues in Life-Span Developmental Psychology: Infancy through Old Age (3). A survey in depth of theories, issues, methods, and data in life-span developmental psychology through the entire age range. Prerequisites: DEP 3001 or DEP 4464, or their equivalents, are recommended.

DEP 5058 Biological Basis of Behavior Development (3). Introduction to theory and research underlying behavioral development. Covers such pre-and post-natal determinants as evolution, genetics, neuroendocrines, as well as social development, behavioral ecology, and sociobiology. Prerequisite: Graduate standing or permission of instructor. Corequisite: Proseminar courses.

DEP 5068 Applied Life Span Developmental Psychology (3). This course is designed to acquaint the student with various applications in life-span developmental psychology. An overview of general issues and areas of application is offered, and specific applications are considered. Prerequisite: Graduate standing or permission of instructor.

DEP 5099 Proseminar in Infancy, Childhood, and adolescence (3). Provides a comprehensive review of issues in perceptual, cognitive, social, emotional, and personality development from infancy through adolescence. Prerequisite: Graduate standing or permission of instructor. Corequisite: Proseminars.

DEP 5118 Current Issues in Cognitive and Perceptual Development in Infancy (3). Provides an in-depth analysis of current issues, methods, research and theory of cognitive and perceptual development during the first year of life. Special emphasis on object and event perception, memory, and imitation. Prerequisites: Two courses in developmental psychology - any level recommended.

DEP 5405 Proseminar in Psychology of Adulthood and Aging (3). A comprehensive review of topics in adulthood and aging including: biological changes, social processes, work, family, cognition, memory, personality, and psychopathology. Prerequisite: Graduate standing or permission of instructor.

DEP 5608 Theoretical Perspectives in Developmental Psychology (3). The focus of this course is on the major paradigms, models, and theories that have been influential in developmental psychology, both historically and contemporaneously. Meta-theoretical issues, paradigmatic influences, and specific theories are considered. Prerequisite: Graduate standing or permission of instructor.

DEP 5725 Research Seminar in Psychosocial Development (1). This course is designed to develop research skills and competencies in the area of psychosocial development. The emphasis of the course is on involvement in original research. Prerequisite: Permission of instructor. Corequisite: Senior undergraduate or graduate standing.

DEP 5796 Methods of Developmental Research (3). Survey of issues and methods at all stages of life-span developmental research including theory, methods, design, and data reduction. Prerequisite: Graduate standing or permission of instructor. Corequisite: proseminars.

DEP 6069 Seminar in Life-Span Developmental Psychology (3). This graduate seminar will examine, through intensive reading and seminar discussion, the major theories, issues and empirical research on cognitive growth, change and decline from infancy through old age. Prerequisites: Two courses in Developmental Psychology (any level).

DEP 6096 Seminar in Psychology of Life-Span Social Development (3). This course includes a consideration of general issues and discussion of the application of life-span models to selected topics development. Prerequisite: Graduate standing or permission of instructor.

DEP 6117 Psychology of Caregiving (3). A survey of theory and research on the effects of caregiving/parenting behaviors, and conditions on behavior outcomes in offsprings, both for infra-humans and humans. Prerequisite: Graduate standing or permission of instructor.

DEP 6145 Psychology of Culture and Childhood (3). Extensive cross-cultural readings will serve as the focus for seminar discussion of cultural influences on children's biological, motor, perceptual, cognitive, social, and personality development. Prerequisite: Graduate standing or permission of instructor.

DEP 6186 Social Development and Learning (3). Theories and facts of socio-emotional development, learning, and the acquisition and maintenance of social relationships in early life are examined critically. Prerequisites: DEP 3000 or DEP 3001 or equivalent.

DEP 6438 Gerontological Assessment (3). This seminar for advanced graduate students involves an intensive examination of the theory, validity, and reliability of the major assessment instruments in gerontology. Prerequisite: Graduate standing.

DEP 6465 Psychology of Culture and Aging (3). An intensive examination of cultural influences on social and psychological aging processes including minority aging and involving seminar discussion and independent projects. Prerequisite: Graduate standing.

DEP 6466 Cognitive Processes in Aging (3). An intensive analysis of the background and recent developments in the area of age changes and age differences in intellectual functioning and learning memory processes. Prerequisite: DEP 5405.

DEP 6477 Psychology of Social Processes in Aging (3). An intensive analysis of the background and recent developments in theoretical models of social development, personality processes, and social processes in the older adult. Prerequisite: DEP 5405.

DEP 6645 Cognitive and Language (3). Course covers the acquisition of cognitive processes and language, and their interdependence. Theory and research focusing on innate vs. learned aspects are discussed. Prerequisite: Graduate standing or permission of instructor.

DEP 6936 Current Literature in the Psychology of Infancy, Childhood, and Adolescence (3). This seminar will present and evaluate current research articles in the major journals in infant, child, and adolescence psychology. Prerequisite: Second year graduate standing.

DEP 6937 Current Literature in the Psychology of Adulthood and Aging (3). This seminar will present and evaluate current research articles in the major journals in the psychology of adulthood and aging. Prerequisite: Second year graduate standing.

DEP 6945 Life-span Developmental Psychology Practicum (3). This is an individually tailored program where students will work in an agency on a specific problem or project, culminating in a final written report. Prerequisite: Second year graduate standing.

EAB 4794 Principles and Theories of Behavior Modification (3). Studies different approaches to the modification of problem behavior, through the application of learning principles and theories.

EAB 5655 Advanced Methods of Behavior Change (3). An intensive study of selected methods of modifying human behavior, emphasizing the applications of the principles of respondent and operant conditioning, as well as those derived from modern social learning theories. Practice and role playing opportunities are provided in behavior therapy, relaxation therapy, behavior modification, biofeedback or similar behavioral approaches. Prerequisites: EAB 4794, CLP 4374, CYP 4144; enrollment in an authorized program; equivalent background; or permission of instructor.

EDP 6935 Special Topics in Educational Psychology (VAR). An intensive analysis of a particular topic in educational psychology. Students must have topics approved by the instructor prior to registration. Open only to advanced and graduate students in the College of Education.

EXP 3304 Motivation and Emotion (3). Introduces several perspectives from learning theory, perception, and personality theory to explore ways in which people move through their physical and social environment.

EXP 3523 Memory and Memory Improvement (3). This introduction to human memory considers the topics from a number of points of view. The following issues are addressed: the nature of memory and its phenomena; the capabilities and limitations of an ordinary and an extraordinary memory; and the skills that can aid an ordinary memory.

EXP 4204 Sensation and Perception (3). Basic concepts in sensation and perception are explored, with an emphasis on models of peripheral and central neural processing. Topics such as receptor function, brightness and color vision, movement and object perception, perceptual memory and pattern recognition are considered. Psychophysical techniques, such as subjective magnitude estimation and signal detection theory, are covered.

EXP 4214C Human Perception: Lecture (2) and Laboratory (3). Lectures concern the methods researchers use to learn about the phenomena of sensation and perception. Laboratory exercises allow students to apply these methods and to experience the perceptual phenomena under investigation. Prerequisites: PSY 3212 and STA 3122.

EXP 4404C Human Learning and Remembering: Lecture (2) and Laboratory (3) (5). Lectures on the research and theoretical contributions to the understanding of human learning and remembering; and laboratory exercises illustrative of the concepts and techniques used in conducting experimental studies of human learning and remembering. Prerequisites: PSY 3212 and STA 3122.

EXP 4605 Cognitive Processes (3). Investigation of the mental processing underlying experiences and behavior. Topics include: games, puzzles, and problems; intuitive and creative thought; conceptualization, reasoning and clinical diagnosis; choices and decisions; conceptions of time and space; and thought in abnormal or altered states of consciousness.

EXP 4934 Current Experimental Theories (3). The stress in this course is on current specific theories determining the nature and direction of the research and interest in several important areas, such as psychophysics, learning and remembering, developmental patterns and motivation, personality, etc. Topics to be covered will be announced at the beginning of the academic year. May be taken twice for credit toward the major.

EXP 5005C Advanced Experimental Psychology: Lecture and Laboratory (5). Lecture and laboratory course investigating experimental research in the fundamental processes of human behavior. Includes perceptual, cognitive, and linguistic processes. Prerequisites: PSY 3212 and STA 3122.

EXP 5099 Proseminar In Experimental Psychology (3). Provides a comprehensive review of current research and theory in areas such as learning, memory, cognition, sensation, and perception. Prerequisite: Graduate standing or permission of instructor.

EXP 5406 Theories of Learning (3). The major theoretical systems of learning are covered, with the intent of determining how well each accounts for the phenomena of learning. Emphasis is placed on exploring the controversial issues raised by extant theories, and the experimental resolution of these theoretical controversies. The impact of theory on current thinking about learning is considered.

INP 3002 Introductory Industrial/ Organizational Psychology (3). Introduction to the study of behavior in the work environment. Illustrative topics included formal and informal organization, work motivation, satisfaction and performance, leadership, job analysis, selection and performance evaluation, training, and development.

INP 4055C Industrial/Organizational Psychology Lecture (2) and Laboratory (3) (5). Students gain experience with the use of psychometric instruments in the areas of job analysis, personnel selection, performance appraisal, job satisfaction, criteria analysis, and management training and development. Prerequisites: PSY 3212; STA 3123; and INP 3002 or INP 4203,or Personnel Management.

INP 4203 Personnel Psychology (3). Techniques and procedures applicable to the selection, placement, utilization, and evaluation of personnel in organizations are considered. The emphasis will be on empirical procedures, rather than the management function in the personnel area. Topics such as quantitative methods and models for selection, criteria analysis, performance appraisal, management training, and job satisfaction are discussed. Prior course in statistics strongly recommended.

INP 6940 Strategies and Methods of Applied Psychological Research (3). A practicum course in the psychological research strategies and the application of computers in the analyses of psychological data.

LIN 4710 Language Acquisition (3). An examination of the way children acquire language, based on experimental findings from contemporary linguistics, psycholinguistics, and behavioral theory.

LIN 5701 Psychology of Language (3). An overview of the psychology of language and the psychological 'reality' of linguistic structure. Behavioristic vs. cognitive views of psycholinguistics are examined. Consideration is given to the biological bases of language and thought, language acquisition, and language pathology.

PPE 3003 Theories of Personality (3). An examination of various theories of personality. Consideration is given to traditional and contemporary approaches to personality development.

PPE 3502 Psychology of Consciousness (3). Normal and altered states of human consciousness are analyzed from the perceptual and neuro-psychological viewpoint. Broad topic areas include physiologically determined levels of arousal, from deep sleep to intense excitement; selective attention; perceptual plasticity; illusions; sensory deprivation; biofeedback; psychosomatic disease; hypnotism and suggestibility; as well as a critical treatment of the phenomena of parapsychology.

PPE 3670 Psychology of Myth (3). Mythology is studied from various psychological viewpoints. The process of Myth. Creation and the role of ritual in psychological enhancement are emphasized. Course focuses on classical mythology.

PPE 4105 Humanistic Psychology (3). Studies the methodology, research, and findings of the humanistic orientation in psychology. Topics such as counseling, encounter groups, higher consciousness, biofeedback, intentional communities, education, mysticism, and religion are examined from the humanistic viewpoint. Prerequisite: Prior completion of a course in Theories of Personality is recommended.

PPE 4325C Differential Psychology: Lecture (2) and Laboratory (3) (5). Lectures and laboratory field experiences in the principles and methods underlying the administration, construction, and evaluation of psychological tests. Practice in the administration and interpretation of selected psychological tests. Prerequisites: STA 3122 or an equivalent introductory course in statistics, and PSY 3212.

PPE 4514 Psychology of Dreams and Dreaming (3). An in-depth examination of the most important psychological theories of dream function and of the use of dreams in different therapeutic approaches. The current research on the physiology and psychology of sleep is also evaluated. Prerequisite: Theories of Personality or its equivalent.

PPE 4604 Psychological Testing (3). An introduction to the rationale underlying the use of psychological tests. Topics include basic test terminology, test administration, interpreting standard scores, reliability, validity, tests of intelligence, interest inventories, personality tests, the ethics of testing, and the fairness of tests for different segments of the population.

PPE 4930 Topics in Personality (VAR). Special topics will be announced in advance.

PSB 4003 Introductory Bio-Psychology (3). A study of the more important psychobiologic correlates of behavior in basic psychological phenomena.

PSY 2020 Introductory Psychology (3). Psychological principles underlying the basic processes of sensation, perception, cognition, learning, memory, life-span developmental, social behavior, personality, abnormal behavior, and psychotherapy.

PSY 3212 Research Methods in Psychology (3). Basic methods in contemporary psychology. Emphasis on the role of methodology and experimentation in subfields of psychology. Students evaluate different designs and conduct original research projects. Prerequisite: STA 3122.

PSY 3930 Psychology of Humor (3). A study of the development of sense of humor in comedians and audiences; its expression in the production and appreciation of comedy, etc.; its psycho-physiologic-social correlates; its effect in maintaining well-being and preventing illness; and its role in human relations.

PSY 4693 Overview of Psychology (3). A consideration of the historical origins and developments of modern psychology as a viable discipline, in light of the major influences upon its growth. Prerequisite: 12 semester hours in upper division psychology courses.

PSY 4900 Independent Readings in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their study.

PSY 4914 Honors Research Project (VAR). Limited to qualified seniors seeking honors in psychology. Students must submit a research plan and have a research advisor's approval of the research project prior to enrollment in the course. A written report of the research in the A.P.A. publication style must be submitted for evaluation before credit will be awarded.

PSY 4916 Independent Research in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a written proposal for research. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their research.

PSY 4930 Special Topics in Psychology (VAR). Special topics will be announced in advance.

PSY 4931 Senior Seminar in Psychology (1). An advanced seminar for seniors. Analysis of major contemporary trends in psychological theory and research.

PSY 4941 Independent Field Experiences in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their experiences.

PSY 5206C Design of Experiments in Psychological Research (3). Reviews the Analysis of Variance, and introduces the student to randomized and blocking designs, factorial designs, fractional factorial, main effects and other plans as they are used in psychological research. Main emphasis is on the rationale behind the several designs, and the techniques for applying these to psychological experiments. Prerequisites: STA 3122 and 3123, or their equivalents.

PSY 5246C Multivariate Analysis in Applied Psychological Research (3). Covers basic techniques of multivariate analysis, emphasizing the rationale and applications to psychological research. Includes multiple regression, Hotellings T#, MANOVA, principle component analysis, and factor analysis. Prerequisite: STA 3123 or equivalent; linear algebra recommended.

PSY 5908 Directed Individual Study (VAR). Under the supervision of an instructor in the graduate degree program, the graduate student delves individually into a topic of mutual interest which requires intensive and profound analysis and which is not available in a formal offering. May be repeated once. Prerequisite: Permission of instructor.

PSY 5917 Psychology Research Proseminar (3). Specialized research and presentation to faculty members in his or her major research area. Seminar style. This course is intended as a core course for the masters program in psychology. Prerequisite: Full graduate admission.

PSY 5918 Supervised Research (VAR). Research apprenticeship under the direction of a research professor or a thesis advisor. Prerequisite: Full graduate admission.

PSY 5939 Special Topics in Psychology (VAR). Special topics will be announced in advance.

PSY 6956 Psychology Field Experience (VAR). Placement of students in applied settings for the purpose of developing community-based experience in the application of theoretical and methodological approaches. Prerequisite: Graduate standing.

PSY 6971 Master's Thesis in Psychology (3-6). Supervised research on an original research project submitted in partial fulfillment of Master's degree requirement.

PSY 7980 Dissertation Research in Psychology (3-12). Supervised research on an original research project submitted in partial fulfillment of doctoral degree requirements. Prerequisite: Admission to candidacy.

SOP 3004 Introductory Social Psychology (3). Introduction to the study of the relationship of the individual to social systems, including topics such as social behavior, attitude development and change, social conflict, group processes, mass phenomena, and communication.

SOP 3015 Social and Personality Development (3). This course provides a survey of social and personality development throughout the life cycle. Emphasis will be placed on the interaction between psychological and environmental variables in life-span development changes.

SOP 3742 Psychology of Women (3). An examination of women from various perspectives, such as biological, anthropological, mythological, religious, historical, legal, sociological, and psycho-analytical points of view. Discussions of ways in which these various perspectives influence the psychological development of contemporary women.

SOP 3772 Psychology of Sexual Behavior (3). An examination of the nature, development, decline, and disorders of sexual behaviors, primarily from the perspectives of normal adjustment and interpersonal relations. Discussion also addresses love, intimacy, and similar emotionally charged socio-psychological topics. Modern and popular treatment approaches -including the 'new sex therapies' are critically evaluated.

SOP 3932 Psychology of Drugs and Drug Abuse (3). This course will cover some basic information about the nature and effects of drugs abused, the social and personal dynamics involved in the phenomena of drug abuse and the various rehabilitation programs currently being employed to combat drug abuse.

SOP 4050 Social Psychology in Latin America (3). Upper division seminar on Social Psychology in Latin America. The course will provide the student with the opportunity to survey the literature and research in social psychology from different countries in Latin America and to compare that material with on-going research and literature in the United States. Prerequisites: SOP 3004 and reading knowledge of Spanish.

SOP 4215C Experimental Social Psychology: Lecture (2) and Laboratory (3) (5). The primary purpose of this course is to have students conduct actual social psychological experiments. Lecture material will be secondary to (and in the interest of) allowing students to execute representative experiments in areas such as attitude measurement and change, group structure, and communication, etc. Prerequisites: PSY 3212 and STA 3122.

SOP 4522 Social Motivation (3). Focuses upon those sources of human motivation that are a consequence of man's social-interpersonal environment and his striving to obtain valued goals. Topics discussed include test-taking anxiety, alienation and affiliation motivation, internal vs. external orientation, achievement motivation, etc. The measurement of social motives and their roots and consequences for behavior are discussed.

SOP 4525 Small Group Behavior (3). Introduction to the study of the structure and function of groups, emphasizing the behavior of individuals as affected by the group. The course focuses on experimental evidence concerning such topics as social facilitation, group decision making, phases in group development, physical factors in group behavior, etc.; rather than upon student experience in sensitivity or encounter training.

SOP 4645 Consumer Psychology (3). This course addresses the psychological components contributing to satisfaction and dissatisfaction in buying and selling transactions. The consequences of such transactions, as they affect the environment in which we live as well as society in general, are examined. The interface between business, labor, government, and the consumer as all four groups are involved in consumer affairs is analyzed objectively.

SOP 4649 Experimental Consumer Psychology: Lecture (2) and Laboratory (3)-(5). Using the interactional workshop and objective observational methods, students will be required to conduct original research projects related to solving consumer affairs problems. Laboratory requirements include both on-and off-campus work. The former emphasizes techniques and evaluation. The latter is necessary for the gathering of data. Prerequisites: PSY 3212 and STA 3122.

SOP 4712 Environmental Psychology (3). An introduction to the man-environment interaction, including psychological, sociological and physical aspects.

SOP 4714 Environment and Behavior: Lecture (2) and Laboratory (3)-(5). Students gain experience with laboratory and field techniques used in the study of the reciprocal relationship between the physical environment and human behavior. Prerequisite: PSY 3213 or permission of instructor.

SOP 4834 Psychology of Health and Illness (3). Course provides an overview of the field of behavioral medicine, the interface of psychology with health and health care. Psychological factors in illness, health, and health delivery systems will be covered. Prevention and early intervention will be stressed.

SOP 4842 Legal Psychology (3). Particular emphasis will be given to interpersonal courtroom processes. Topics considered include scientific jury selection, proximics, persuasive argumentation, witness demeanor, eyewitness testimony, and similar influences upon juror decision making.

SOP 5058 Proseminar in Social Psychology (3). An in-depth examination of the role of social psychology in the social sciences and the major substantive problems as they relate to contemporary societal issues. Minimum Prerequisite: An introductory course in social psychology or its equivalent.

SOP 5316 Theories and Methods of Cross-Cultural Research (3). An intensive analysis of contemporary theories and methods of cross-cultural research in psychology including topics such as: culture as a research treatment, differential incidence of personality traits, the use of ethnographies, 'etic' vs. 'emic' distinction. Prerequisite: Graduate standing or permission of instructor.

SOP 5616 Social Psychology of Organizations (3). The application of concepts and theories from social psychology and sociology to the organizational setting. Emphasis would be on role theory, value formation and the operation of norms, including their development and enforcement. Formal and informal organization structure, power and authority concepts, and leadership theories will be covered. Communication processes and networks and their effects on task accomplishment and satisfaction will be included.

Religious Studies

Robert Hann, *Associate Professor and Chairperson, Department of Philosophy and Religion*
Bongkil Chung, *Associate Professor*
James Huchingson, *Associate Professor*
Susan Kwilecki, *Assistant Professor*

Degree: **Bachelor of Arts**

Religious Studies is a program in the Department of Philosophy and Religion.

Lower Division Preparation
To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Recommended Courses: Religion, Philosophy, History

Upper Division Program: (60 semester hours)
Required Areas

Religion and Culture	6
Ecumenical and Historical Studies	3
Biblical Studies	6
Religious Studies Seminar	3
Other Religious Studies Courses or Optional Tracks	15
Courses in one other discipline	12
Electives	15

Remarks: A complete description of the Religious Studies Program is contained in a brochure available at the Department of Philosophy and Religion. Students should refer to the brochure for specific requirements of the major program. Students select their required courses in religious studies with the approval of a faculty member of the Department.

Students are also encouraged to consider a dual-major i.e., simultaneously to meet the requirements of two academic majors. In these cases, the twelve semester hour credits required in one other academic discipline (as part of the Religious Studies Major) are met by courses taken towards the second major.

The Department offers many of its courses at the North Miami Campus and participates in the Humanities Major. It also serves the community and professional groups by offering courses off campus. For further information concerning these courses consult the department.

Minor in Religious Studies
A student majoring in another academic discipline can earn an academic minor in religious studies by taking a pattern of at least four REL courses (12 semester hours) approved in advance by the Chairperson of the Department. Students are normally expected to take REL 3300 as one of these courses. A student may propose still other patterns of four religious studies courses for a minor, provided the selection is based upon an acceptable rationale.

Course Descriptions
Definition of Prefixes
GRE—Ancient Greek; REL—Religion; PHI—Philosophy.

GRE 3050 Introduction to Ancient Greek (5). This course introduces the Greek language of Plato, the New Testament, and other works of the ancient period. Its goal is to enhance the understanding of translated texts and to prepare for more advanced study of Greek. A portion of the Gospel of John will be studied in class.

PHI 3700 Philosophy of Religion (3). This course investigates whether or not religious beliefs can be rationally justified. Such topics as the nature of God, the problem of evil, religious experience, and the relationship of faith to reason will be explored.

This course will involve a study of the phenomena of religion, as a means of identifying and evaluating religion's essential and universal element. Consideration will also be given to the relations between the enterprises of philosophy and religion. The result of these investigations will then be applied to specific topics examined by both disciplines.

PHI 3762 Eastern Philosophical and Religious Thought (3). This introductory course examines the development of philosophical and religious thought in the East, from ancient to modern times. Hinduism, Buddhism, Confucianism, Taoism, and other major viewpoints will be considered, in themselves and in comparison with Western forms of thought.

PHH 3840 Indian Philosophy (3). Metaphysical, epistemological and ethical theories within such major Indian philosophical systems as philosophical Buddhism, Jainism, Samkhya dualism, and Vedanta transcendentalism are examined.

PHP 3840 Chinese and Japanese Philosophy (3). Metaphysical and ethical theories of the three main philosophical systems of China, namely, Classical and neo-Confucianism, Taoism, and Chinese Buddhism are examined. For Japanese philosophy, Shintoism is included.

REL 2000 The Scope and Forms of Religion (3). An introduction to the many varieties of religious conduct, belief, and practice. Includes a survey of the major world religions, and discussions of the forms of religious experience and contemporary issues.

REL 2936 Special Topics (3). In-depth study of topics of special interest in religion.

REL 3100 Introduction to Religion and Culture (3). This course explores both the ways religion uses culture to express its basic concerns and the ways that culture and lifestyle reflect religious perspectives. Attention will be given to traditional and popular expressions of American culture.

REL 3130 Religion in America (3). Thematic and historical survey of mainline religious groups and major spiritual trends in America. Includes Puritanism, revivalism, social gospel, and Southern civil and Black religions.

REL 3131 American Sects and Cults (3). Examines several recent religious movements in American life, such as the Unification Church, the International Society for Krishna Consciousness, UFO cults, and others.

REL 3160 Science and Religion (3). The methods, assumptions, goals of religion will be compared with those of the natural and human sciences. Specific issues, such as evolution, sociobiology, and the new astronomy will be considered to illustrate similarities and differences between the two approaches.

REL 3170 Religion and Ethics (3). This course will examine the nature of ethics in its relationship to faith orientation. After considering the various religious foundations of ethics in the thought of influential thinkers, attention will be given to the application of these perspectives to pressing ethical problems in contemporary society.

REL 3210 Introduction to the Old Testament (3). This course introduces the literature and thought of the Old Testament, especially as these were shaped in interaction with political, social, and historical currents of the times.

REL 3240 Introduction to the New Testament (3). This course introduces the thought and literature of the New Testament in its contemporary setting. Attention is given to Jesus and Paul and to later developments in first-century Christianity.

REL 3270 Biblical Theology (3). Explores the ideas of God, man, redemption, ethics, and the after-life, tracing each through its development from earliest Hebrew thought to the rise of post-biblical Judaism and Christianity.

REL 3300 Religions of the World (3). Introduction to the major faiths of mankind. Included in the discussion will be Hinduism, Buddhism, Taoism, Judaism, and Christianity. This course will involve a comparison of common elements in these major religions while respecting their distinctive features.

REL 3325 Religions of Classical Mythology (3). Examines the beliefs and practices of ancient Egyptian, Semitic, Greek, and Germanic religions, their influences on later civilization and religious thought, and the possible continuing insights offered by each.

REL 3393 Religious and Magical Rituals (3). Comparative study of the manipulation of supernatural power through ritual in Eastern, Western, and Primitive traditions. Interdisciplinary theories of ritual considered.

REL 3492 Man and Nature (3). This course will explore resources from philosophy and religion that could contribute to a solution of the current environmental crisis. Ethical issues of the environment will especially be examined in the light of these resources.

REL 3505 Introduction to Christianity (3). Introduces the basic beliefs and practices of Christianity in their historical and modern forms, including both common and distinctive elements of Catholicism, Protestantism, and Eastern Orthodoxy.

REL 3510 Early Christianity (3). This course will survey the First development of Christian thought and practice from its beginnings as a primitive church to its establishment as a major faith in the Middle Ages. It will then consider the relevance of this early experience for modern movements of this faith.

REL 3520 Medieval Christianity (3). Surveys Christianity during the middle ages, including its development, medieval theology and religious practices, and its on-going influence in Christianity.

REL 3532 Reformation (3). The lives and thoughts of the leaders of the Protestant Reformation will be the focus of this course. Significant attention will be given to the personal experiences and theological perspectives which directed the actions of such persons as Luther, Calvin, and Zwingli, as well as the movements they founded.

REL 3564 Modern Catholicism (3). Surveys Catholicism from the Vatican Council to the present, including developments in liturgy, theology, and the relationship of the Church to the world.

REL 3600 Judaism (3). This course is an introduction to this major world religion. Following a survey of the history of Judaism, major themes in Jewish religious thought will be highlighted, especially as they relate to modern movements of this faith.

REL 4156 Personal Religion (3). Reviews religious lives of men and women, famous and ordinary, from mystics to the irreligious. Theories introduced to elucidate variety and dynamics of religion at the personal level.

REL 4173 Technology and Human Values (3). This course will explore the sources and impact of modern technology from philosophical and religious perspectives. Topics to be discussed include the effects of technology upon the understanding of human nature; and the relationship among technology, the natural environment, and hopes for a livable human future.

REL 4205 Current Methods in Biblical Studies (3). This course introduces the Bible and the methods and tools of biblical study, including translations, word studies, historical studies, and the use of appropriate secondary resources. Prerequisite: REL 3210, REL 3240 or permission of instructor.

REL 4224 The Prophets and Israel (3). Examines the setting of the prophets in the history of Israel, their contributions to biblical religion, and their use in later religious and renewal movements.

REL 4251 Jesus and Paul (3). Examines the historical settings, teachings, significance, and later interpretations of Christianity's founder and its foremost interpreter.

REL 4340 Survey of Buddhism (3). The course will explore the central themes of the main schools of Buddhism developed in India, China, Japan, and Korea. The themes will be examined from religious, moral, and philosophical points of view.

REL 4345 Zen Buddhism (3). This course explores Zen (ch'an) Buddhism in its historical, theoretical, and practical dimensions with a specific aim of examining the theme that the Buddha mind can be actualized by awakening to one's own Buddha-nature.

REL 4420 Contemporary Religious Thought (3). A survey of major figures in contemporary theology for the purpose of understanding their thought and its application to current issues in religion and society.

REL 4441 Religion and the Contemporary World (3). An examination of reflection by religious thinkers and others who employ religious perspectives, concerning select conceptual issues of critical importance in the contemporary world.

REL 4481 Contemporary Latin American Religious Thought (3). The major trends of religious thought in Latin America and their impact on the society of the area will be investigated. Special reference will be made to Post-Vatican II theology and to very recent theologies of liberation.

REL 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of instructor.

REL 4931 Religious Studies Seminar (3). This seminar is designed for majors and other qualified students approved by the Department. The specific topic will be selected and announced in advance. The number of participants will be limited.

REL 4936 Special Topics (3). In-depth study of topics of special interest in religion.

REL 5030 Methods in the Study of Religion (3). This course examines a number of the most important methods used in the academic study of religion, together with representative examples of the use of these methods. Prerequisite: Bachelor's degree in Religious Studies or permission of instructor.

REL 5911 Independent Research (1-5). Topics are selected to meet the academic needs of the individual student. Prerequisite: Permission of Instructor.

REL 5937 Special Topics (3). Topics will be selected to meet the academic needs of groups of students.

Sociology/ Anthropology

Lisandro Perez, *Associate Professor and Chairperson*
Jerry Brown, *Associate Professor*
Janet Chernela, *Assistant Professor*
Stephen Fjellman, *Associate Professor*
Hugh Gladwin, *Assistant Professor*
Guillermo Grenier, *Assistant Professor*
Antonio Jorge, *Professor*
A. Douglas Kincaid, *Assistant Professor*
Barry Levine, *Professor*
Shearon Lowery, *Associate Professor*
Anthony P. Maingot, *Professor*
James Mau, *Professor and Dean*
Betty Morrow, *Associate Professor*
William Osborne, *Associate Professor*
Alejandro Portes, *Patricia and Phillip Frost Endowed Professor*
Alex Stepick, *Associate Professor*
William T. Vickers, *Associate Professor*

Degree: **Bachelor of Arts**

Lower Division Preparation
To be admitted to the upper division, students must meet the University's and College's admission requirements. Coursework in pre-Arts and Sciences, or pre-Anthropology or Sociology is recommended. Students without an AA degree must have the background to handle advanced academic work.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Required Courses: Introduction to Cultural Anthropology, or Introduction to Physical Anthropology, or Introduction to Sociology. If the student does not have one of these courses, it will be required as part of the upper division program.

Recommended Courses: Other anthropology courses; ecology, economics, geography, history, political science, psychology; arts, biology, English, foreign languages, mathematics, philosophy.

Upper Division Program: (60 semester hours)
Required Courses: (27 semester hours)
Core Courses

ANT 3086	Anthropological Theories	3
SYA 3300	Research Methods	3

SYA 4010	Sociological Theories	3
SSI 3303	Ethical Issues in Social Science Research	3

Area Courses: either Anthropology or Sociology 15

Electives: with the approval of the faculty advisor 33

A grade of 'C' or higher is required for all courses that make up the major (12 semester hours of core courses and 15 semester hours of area courses in Sociology and Anthropology).

Tracks: The Department of Sociology/Anthropology offers the following academic tracks: 1) General Sociology/Anthropology; 2) Graduate Training; 3) Human and Social Services; 4) Community Research and Public Policy; 5) Communications and Arts; 6) Social Psychology. A student with special interests may consult faculty advisors to plan an individualized program of study.

Field Work Experience: A meaningful understanding of anthropology and sociology can best be developed through the interplay of theory and research. Each student will be encouraged to work outside the formal classroom under faculty supervision.

Minor in Sociology/Anthropology

Prescribed Courses: Fifteen credits in the Department of Sociology/Anthropology including two courses from the following:

ANT 3086	Anthropological Theories	3
SYA 4010	Sociological Theories	3
SYA 3300	Research Methods	3
SSI 3303	Ethical Issues in Social Science Research	3

Course Descriptions

Definition of Prefixes

ANT—Anthropology; DHE—Demography & Human Ecology; HUS—Human Services; LIN—Linguistics; MAF—Marriage & Family; SYA—Sociological Analysis; SYD—Sociology of Demography and Area Studies; SYG—Sociology, General; SYO—Social Organization; SYP—Social Processes.

ANT 2003 Introduction to Anthropology (3). This course surveys the four subfields of anthropology, including physical anthropology and human evolution, archaeology, cultural anthropology and linguistics, and introduces basic anthropological theories and concepts.

ANT 3086 Anthropological Theories (3). This course examines the process of theory building and explanation in the social sciences, and outlines the historical and philosophical foundations of anthropological thought. Theorists and schools of thought reviewed include Darwin and evolution; Boas and historical particularism; Freud and culture and personality; and Malinowski and functionalism.

ANT 3100 Introduction to Archaeology (3). The history of archaeology is traced from its origins to its emergence as a scientific discipline within anthropology. Students are familiarized with the concepts and methods of modern archaeology, and with the scientific goals of archaeological research.

ANT 3144 Prehistory of the Americas (3). Early man in the Americas is examined through archaeological records.

ANT 3241 Myth, Ritual, and Mysticism (3). A survey of anthropological approaches to the study of myth, ritual, and mysticism, as religious and symbolic systems. The social and psychological functions of myth and ritual in primitive and complex societies will be compared.

ANT 3251 Peasant Society (3). Comparative study of peasant societies with emphasis on the concepts of folk community, traditional culture, and modernization. Data on peasantry in Latin America and other culture areas will be reviewed.

ANT 3302 Male and Female: Sex Roles and Sexuality (3). Cross-cultural ethnographic data will be utilized to examine the enculturation of sex roles, attitudes and behavior; cultural definitions of maleness and femaleness; and varieties of human sexual awareness and response.

ANT 3402 Anthropology of Contemporary Society (3). The application of classical anthropological methods and concepts to the analysis of contemporary American culture. Investigation of a unique cultural scene will involve the student in field work and the preparation of an ethnographic report.

ANT 3403 Cultural Ecology (3). Systems of interaction between man and his environment; the role of social, cultural, and psychological factors in the maintenance and disruption of ecosystems; interrelations of technological and environmental changes.

ANT 3422 Kinship and Social Organization (3). Topics will include comparative study of systems of kinship, social organization and politics in preliterate societies. Age and sex differences, division of labor, class, caste, slavery, and serfdom also will be explored.

ANT 3432 Culture and Personality (3). The relationship between culture and personality; problems of individual adjustment to cultural norms; and current issues is psychological anthropology.

ANT 3442 Urban Anthropology (3). Anthropological study of urbanization and urban life styles, with particular emphasis on rural-urban migration and its impact on kinship groups, voluntary associations, and cultural values.

ANT 3462 Medical Anthropology (3). A survey of basic concepts; examination of preliterate and non-western conceptions of physical and mental health and illness; emphasis on cultural systems approach to the study of illness and health care. Background in biology, medicine, or nursing helpful. Prerequisite: Permission of instructor.

ANT 3476 Movements of Rebellion and Revitalization (3). Cross-cultural study of revolutionary, messianistic, and revitalization movements in tribal and peasant societies. Case materials include Negro-slave revolts, cargo cults, and peasant wars of the twentieth century (Mexico, China, Vietnam).

ANT 3500 Introduction to Physical Anthropology (3). A study of the biological history of man as interpreted through the theory of evolution, anatomy and the fossil record, contemporary population genetics, and the concept of race.

ANT 3642 Language and Culture (3). An examination of the relationship between language and culture, the implications of language for our perceptions of reality, and the socio-cultural implications of language differences for interethnic relations and international understanding.

ANT 4211-4360-4361-4328 Area Studies (3). Ethnological survey of selected indigenous cultures. Areas to be studied include: (1) North America; (2) Africa; (3) Asia or Southeastern Asia; (4) China. Topics will be announced and will vary depending on current staff.

ANT 4224 Tribal Art and Aesthetics (3). This course deals with the social and cultural context and functions of art in preliterate societies as in sub-Saharan Africa, New Guinea, and North America. Topics include wood carving, bronze casting, singing, dancing, drumming, masquerading, theatrical performance, and all forms of oral literature.

ANT 4305 Explorations in Visual Anthropology (3). An examination of the use of film in anthropology, both as a method of ethnographic documentation and as a research technique for analyzing non-verbal modes of communication. Documentary films and cross-cultural data on paralanguage, kinesics, proxemics, and choreometrics will be reviewed and discussed.

ANT 4306 The Third World (3). An interdisciplinary, cross-cultural survey of the factors contributing to the emergence of the Third World. Significant political, economic, pan-national and pan-ethnic coalitions are analyzed.

ANT 4312 American Indian Ethnology (3). An examination of the sociocultural patterns of selected American Indian groups as they existed in the indigenous state, prior to European contact.

ANT 4324 Mexico (3). An interdisciplinary examination of the major social, cultural, economic, and political factors contributing to the transformation from the Aztec empire to colonial society to modern Mexico.

ANT 4328 Maya Civilization (3). A survey of the culture and intellectual achievements of the ancient Maya civilization of Mesoamerica. Course includes: history and social-political structure, archaeology, agriculture and city planning, mathematics, hieroglyphics, astronomy, and calendars.

ANT 4332 Latin America (3). Native cultures of Mexico, Central and South America; the lowland hunters and gatherers, and the pre-Columbian Inca and Aztec Empires; the impact of the Spanish conquest.

ANT 4335 Inca Civilization (3). A survey of Andean culture history with emphasis on Inca and pre-Inca civilizations. Includes discussion of peopling of South America, habitats, and the transition from foraging to village settlements, and the rise of indigenous empires.

ANT 4340 Cultures of the Caribbean (3). An ethnological survey of native cultures and of the processes of culture contact and conflict in the Caribbean and Circum-Caribbean region.

ANT 4343 Cuban Culture and the Revolution (3). Cultural history of Indian, African, and Spanish populations; the Revolution and traditional Cuban society; the problems and prospects of the Cuban community in the United States.

ANT 4352 African Peoples and Cultures (3). This course includes a survey of the cultures and civilizations of sub-Saharan Africa. It includes discussions of history, geography, sociopolitical structures, religion, art, music, and oral literature.

ANT 4406 Anthropology of War and Violence (3). The purpose of this course is to introduce the scientific study of human aggression and warfare from an evolutionary and cross-cultural perspective in order to gain a better understanding of the causes and consequences of such behavior, and to evaluate proposed options for the control of warfare.

ANT 4433 Psychological Anthropology (3). Cross-cultural studies in cognition, possession states, myth making and world view are examined. The interface of anthropology, psychology and psychiatry is reviewed.

ANT 4451 Racial and Cultural Minorities (3). The study of selected ethnic and cultural groups, with particular emphasis on patterns of inter-ethnic and intercultural relationships. Minority groups studied may include Afro-Americans, American Indians, Chicanos, Cubans, women, senior citizens or prisoners.

ANT 4460 Hallucinogens and Culture (3). Cross-cultural examination of the political, religious, and socio-cultural factors related to altered states of consciousness, including dreams and images. Applications to contemporary psychology are explored.

ANT 4552 Primate Behavior and Ecology (3). This course covers the evolution of primates, and primate ecology, social organization, and intelligence. The course will provide students with opportunities to observe and study living primates.

ANT 4723 Education and Socialization (3). A cross-cultural examination of educational and socialization processes, their functions in the larger society, and the value systems they transmit.

ANT 4907 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

ANT 4908 Directed Field Research (VAR). Permission of instructor required.

ANT 4930 Topics in Anthropology (3). Special courses dealing with advanced topics in the major anthropological subdisciplines: (1) social and cultural anthropology, (2) applied anthropology, (3) physical anthropology, (4) linguistics, and (5) archaeology. Instruction by staff or visiting specialists. Topics to be announced. Instructor's permission required. May be repeated.

ANT 5496 Social Research and Analysis (3). A graduate overview of the scientific methods used in intercultural studies. Includes the philosophical basis of science, research design, and hypothesis testing using both secondary and original data. Students will conduct a research project in this course. Prerequisite: Graduate status or permission of the instructor.

ANT 5908 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

ANT 5915 Directed Field Research (VAR). Permission of instructor required.

SSI 3303 Ethical Issues in Social Science Research (3). An introduction to the problems of possibilities of ethical premises in the perspectives and work of social scientists. Examination of historical interrelationships between moral philosophies and developing scientific methodologies. Analyses of contemporary social ethicists' attempts to assume moral postures while examining social relations. Case studies involving issues such as nation building in areas of accelerated change including Africa and Asia.

SYA 3300 Research Methods (3). An introduction to the scientific methods and its application to anthropological and sociological research. Topics include: formulation of research problems; research design; field methods and collection of data; hypothesis testing and interpretation of results.

SYA 3949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

SYA 4010 Sociological Theories (3). Examines the emergence of sociology as the study of social relations. Compares and contrasts the work of selected theorists, with respect to their methodologies, treatment of the emergence and consequences of modern society, political sociology, conception of social class, and analysis of the role of religion in society. The student is expected to gain in-depth knowledge of opposing theories, as well as an appreciation of the contingent nature of sociological theories.

SYA 4011 Advanced Social Theory (3). An analysis of various classical and current sociological theories, with particular attention paid to their conceptions of man in society and the wider implications such conceptions have. The theories of Durkheim, Parsons, Weber, Goffman, Bendix, and Dahrendorf are examined.

SYA 4124 Social Theory and Third World Innovations (3). An examination of the contributions to social theory by intellectuals of the Third World. Particular attention is paid to theory derived from classical Marxism.

SYA 4170 Comparative Sociology (3). A cross-cultural and cross-national survey of sociological studies, with particular emphasis on theoretical and methodological issues. Examples will be drawn from studies on culture patterns, social structures, sexual mores, power relationships and the ethical implications of cross-national research.

SYA 4330 Basic Research Design (3). Advanced course in social research, providing research practicum for studying patterns of human behavior; analyzing findings of studies, methodical and analytical procedures; reporting and explaining these results; and applying these inferences to concrete situations. Also acquaints the student with the use of computers in research in the behavioral sciences.

SYA 4354 Historical Sociology (3). The authenticity and meaning of historical data for sociological research. Systematic theories in history are analyzed for their utility in sociology. Particular emphasis on the sociological uses of the comparative method in history.

SYA 4621 Sociology of the 20th Century (3). An examination of the sociological implications evident in the events of our modern world. Heavy reliance is placed on intellectual materials other than social science, especially literature.

SYA 4905 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

SYA 4941 Directed Field Research (VAR). Permission of instructor required.

SYA 4949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Cooperative Education Program and major department.

SYA 5130 Sociology of Knowledge (3). The study of the theoretical basis of knowledge and the inter-relatedness of knowledge and social factors, particularly as knowledge relates to institutional forms of behavior.

SYA 5909 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

SYA 5941 Directed Field Research (VAR). Permission of instructor required.

SYA 6975 Thesis (1-6). Registration for students working on their thesis for the M.A. in International Studies. Prerequisite: All other course work for the Master's in International Studies.

SYD 3600 The Community (3). The social group known as the community is identified and analyzed for its distinctive qualities. By distinguishing it from other social groups, its dominating force on the behavior of its members is isolated. Attention is given to the interaction of individuals and groups as they exist within the community.

SYD 4410 Urban Sociology (3). Study of the urban community, with particular attention to the problems associated with urban life. The development of urban societies is reviewed historically, and factors associated with this development are identified.

SYD 4601 Community Organization (3). An intensive study of how communities are organized, with special emphasis on the interactive processes of the varied components of a community. Special study, permitting students to concentrate on interest areas, is required.

SYD 4610 Area Studies: Social Structures and Problems (3). Special courses on the social structures and related problems of specific geographical and cultural areas. To be offered at various times.

SYD 4630 Latin American and Caribbean Social Structures (3). Exploration of the types of social structures, statuses, and roles, and the resulting distributions of power and authority in the hemisphere.

SYD 4700 Minorities/Race and Ethnic Relations (3). The study of social groups identified by racial or ethnic characteristics. Particular emphasis is given to the role of minorities in society, and the interactive process resulting from their contact with the majority. Social behaviors of minorities are reviewed and related to institutional structures and their accepted norms.

SYD 4701 Social Conflict in Multi-Ethnic Societies (3). Cases are selected from a variety of societies with differing types of majority-minority situations. Prejudice and discrimination are seen as weapons in group and class conflict. The consequences of prejudice are analyzed in terms of the costs to every group in the society.

SYD 4704 Seminar in Ethnicity (3). An upper-level seminar, stressing a comparative sociological approach to the study of two or more racial-ethnic groups. Emphasis on the interrelations of ethnic communities within the same society and the socio-political effects of these interrelations. Prerequisite: SYD 4700 or permission of Department.

SYD 4810 The Role of Women in Contemporary Society (3). A concentrated study of women in society, addressing role origins and their development in contemporary society. Particular attention given to how such behaviors become normalized and the rapidity with which they change.

SYG 2000 Introduction to Sociology (3). This course introduces the sociological perspective and method, and the basic areas of sociological interest such as socialization, sex roles, social groups, race and ethnic relations, deviance and social control, social stratification, and urban life.

SYG 3002 The Basic Ideas of Sociology (5). The course introduces the student to the ideas of community, authority, status, alienation, and the sacred, as used in sociological literature.

SYG 3010 Social Problems (3). An introduction to the concept of a social problem and the approaches used to understand more fully the total dimensions of some specific problems. Special emphasis is given to clarifying one's understanding of the underlying nature of selected social problems, an analysis of those aspects amenable to remedy, and an inventory of the knowledge and skills available.

SYO 3120 Marriage and the Family (3). An introduction to the intensive study of the kinship relationship of man known as family. The family is distinguished from other special units, and behavior variations of this special unit are analyzed and associated with special functions. Contemporary manifestations of the family and the dynamic changes indicated are considered.

SYO 3250 School and Society (3). A specialized course dealing with the place of schools (particularly public) in society, the import of social criteria for school personnel, and the influence of such criteria on educational processes within the school system (institution).

SYG 3320 Social Deviancy (Deviant Behavior) (3). The study of behavior that counters the culturally accepted norms or regularities. The social implications of deviancy are reviewed, and theoretical formulations regarding deviant behavior are analyzed.

SYO 4130 Comparative Family Systems (3). The study of family organization and function in selected major world cultures. Emphasis is given to the inter-relationships of the family, the economic system, urbanization, and human development.

SYO 4200 Sociology of Religion and Cults (3). The study of religions institutions, their structure and function in various societies. Leadership qualities, participation, and practices, and the relationship of religious institutions to other social institutions are studied.

SYO 4300 Political Sociology (3). The underlying social conditions of political order, political process, and political behavior are explored. Examples are drawn from empirical and theoretical studies of power, elites, social class and socialization.

SYO 4530 Social Stratification (Mobility) (3). The study of society structured hierarchically with particular attention to the form and content of the various levels. Problems in the social order and differential human behaviors associated with stratification are analyzed.

SYO 4571 The Problems of Bureaucracy In The Modern World (3). The course deals with the micro-sociological problems of the internal organization of bureaucracies; the relation between bureaucracy and personality; the macro-sociological problems of the emergence of the bureaucratic form; bureaucratization and contemporary life; general problems of affluence; meaningless activity; ways to beat the bureaucracy; and bureaucracy and atrocity.

SYO 4582 Studies in Comparative Lifestyles (3). A problem-oriented course emphasizing the differential behavior associated with categories such as nationalism, social class, income distribution, and political or religious affiliation.

SYP 3000 The Individual in Society (3). Introduction to the study of the individual as a social being, with particular emphasis on man's social origins, human perceptions, and the interaction of the individual and the group within society.

SYP 3030 Small Groups (3). Survey of small group studies, their development and the associated theoretical schools of thought. The significance of small group studies for social theory is evaluated.

SYP 3300 Collective Behavior (3). The study of human behavior as found in relatively unstructured forms, such as crowds, riots, revivals, public opinion, social movements and fads. The interplay of such behavior and the rise of new norms and values is analyzed.

SYP 3400 Social Change (3). The study of major shifts in focus for societies or culture, and the indicators associated with such changes. Particular attention is given to the development of industrial societies and the dynamics involved for nations emerging from various stages of 'underdevelopment.'

SYP 3520 Criminology (3). An introduction to the study of criminal behavior, its evidence in society, society's reaction to the subjects involved, and the current state of theoretical thought on causality and treatment.

SYP 3530 Delinquency (3). An analysis of behavior which is extra-legal, with major concentration on its appearance among young people (juveniles) and society's response. Particular emphasis is given to the dynamic thrusts being made in establishing juvenile rights as a distinct part of human or civil rights.

SYP 4321 Mass Culture (3). Analysis of the social, political and cultural impact of mass communications.

SYP 4410 Social Conflict (3). The study of conflict in society and its place in social relationships. A study of causes and resolutions, with particular emphasis on methods of resolution and their influence on social change.

SYP 4421 Man, Society and Technology (3). The study of contemporary society, man's role in it, and effects of technological change. A study of interrelationships, with special attention given to vocational study and instruction within the framework of the relationships perceived.

SYP 4441 Sociology of the Underprivileged Societies (3). An examination of the various theories concerning what is happening in the 'underdeveloped world.' The political, social, and economic events of these societies are subjected to sociological analysis.

SYP 4601 Symbols and Society (3). An analysis of the effect of culture on the individual and on society. The roles of popular and intellectual culture will be examined.

SYP 4730 Sociology of Aging (3). The social impact of aging on individual and group interaction patterns, particularly in the areas of retirement, family relations, community participation and social services. Explores the major sociological theories of aging in light of current research.

SYP 4740 Sociology of Death (3). An introduction to 'death' as social phenomenon. Attention given to various approaches which systematically study death, with primary emphasis given to the sociological approach. Major attention is given to an exploration of attitudes toward death, and an assessment of the implications for the respective groups involved.

Statistics

Carlos W. Brain, *Associate Professor and Chairperson*
Micheal Andreoli, *Visiting Instructor*
Gauri L. Ghai, *Associate Professor*
Laura Howard, *Instructor*
Ina Parks Howell, *Lecturer*
Shing-Her Juang, *Assistant Professor*
Shih-Chang Lee, *Assistant Professor*
Samuel S. Shapiro, *Professor*
Hassan Zahedi-Jasbi, *Assistant Professor*

Degree: **Bachelor of Science**

Lower Division Preparation
To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Required Courses: Calculus including multivariable calculus and an introductory course in computer programming.

Remarks: If an entering statistics major student has not met a lower division requirement the equivalent course must be taken at the University, and will be counted as a non-major elective. The equivalent courses are: MAC 3311 - MAC 3312 - MAC 3313 (Calculus), CGS 3420 (FORTRAN) or COP 3210 (PASCAL).

Upper Division Program
Required Courses

MAS 3105	Linear Algebra	3
STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3
STA 3321	Introduction to Mathematical Statistics I	3
STA 3322	Introduction to Mathematical Statistics II	3

Five additional approved Mathematical Sciences courses (Computer Science, Mathematics, or Statistics), with at least three in statistics. Electives: The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The student must consult his or her advisor to determine which courses, in addition to the required courses listed above, satisfy the requirements for a statistics major. The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Statistics major: MAC 3233, STA 3013, STA 3122-23, STA 3132, STA 3033, and QMB 3150 (College of Business Administration).

Minor in Statistics

Required Courses

STA 3321	Introduction to Mathematical Statistics I	3
STA 3322	Introduction to Mathematical Statistics II	3
STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3

A grade of 'C' or higher in each of these courses is necessary for the minor.

Remarks: No mathematical sciences courses (Computer Science, Mathematics, or Statistics) can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a mathematical science course is required for a major in the one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Course Description

Definition of Prefixes
STA—Statistics; MAP—Mathematics, Applied;

MAP 5117 Mathematical and Statistical Modeling (3). Study of ecological, probabilistic, and various statistical models. Prerequisites: MAC 3313, COP 3210 or CGS 3420, MAS 3105; and STA 3322 or STA 3164 or STA 3033.

STA 3013 Statistics for Social Services (3). This is an elementary course in statistics, covering graphical and numerical condensation of data as well as the most basic parametric and non-parametric methods. Emphasis is placed on the interpretation of statistical results, rather than on ways to analyze experimental data.

STA 3033 Introduction to Probability and Statistics for CS (3). Basic probability laws, probability distributions, basic sampling theory, point and interval estimation, tests of hypothesis, regression and correlation. Mini tab will be used in the course. Prerequisite: MAC 3312.

STA 3122-STA 3123 Introduction to Statistics I and II (3-3). A course in descriptive and inferential statistics. Topics include: empirical and theoretical probability distributions; point and interval estimation; hypothesis testing; analysis of variance, regression, correlation, and basic non-parametric tests.

STA 3132 Business Statistics (3). Starting with an introduction to probability, the course provides an introduction to statistical techniques used in management science. It includes descriptive statistics, probability distributions, estimation and testing of hypothesis.

STA 3163-STA 3164 Statistical Methods I and II (3-3). This course presents tools for the analysis of data. Specific topics include: use of normal distribution, tests of means, variances and proportions; the analysis of variance and covariance (including contrasts and components of variance models), regression, correlation, sequential analysis, and non-parametric analysis. Prerequisite: College algebra or first course in statistics.

STA 3182 Statistical Models (3). This is a specialized course in the use of statistical models to represent physical and social phenomena. The emphasis is on providing tools which will allow a researcher or analyst to gain some insight into phenomena being studied. An introductory knowledge of probability theory and random variables is assumed. Specific topics include: introduction to discrete and continuous probability distributions, transformation of variables, approximation of data by empirical distributions, central limit theorem, propagation of moments, Monte Carlo simulation, probability plotting, testing distributional assumptions. Prerequisites: MAC 3313 and first course in statistics.

STA 3321-STA 3322 Introduction to Mathematical Statistics I and II (3-3). This course presents an introduction to the mathematics underlying the concepts of statistical analysis. It is based on a solid grounding in probability theory, and requires a knowledge of single and multivariable calculus. Specific topics include the following: basic probability concepts, random variables, probability densities, expectations, moment generating functions, sampling distributions, decision theory, estimation, hypothesis testing (parametric and non-parametric), regression, analysis of variance, and design of experiments. Prerequisite: MAC 3313.

STA 3905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

STA 3930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

STA 4173-HSC 4510 Statistical Applications in Health Care (3). A course in descriptive and inferential statistics for the Health Services. Topics include probability distributions, point and interval estimation, hypothesis testing, regression and correlation, and contingency table analysis. Prerequisite: STA 3013 or equivalent college mathematics course.

STA 4502 Practical Non-parametric Statistics (3). This course deals primarily with tests of hypotheses for situations where standard parametric procedures (t-test, F-test, etc.) cannot be applied. Topics include binomial, multinomial and Poisson tests, permutation test, sign test, Mann-Whitney U test, Wilcoxon signed rank test, rank correlation, contingency chi-square , Kruskal-Wallis one-way ANOVA by ranks, Friedman test and other non-parametric tests. Prerequisite: First course in statistics.

STA 4664 Statistical Quality Control (3). This course presents the simple but powerful statistical techniques employed by industry to improve product quality and to reduce the cost of scrap. The course includes the use and construction of control charts (means, percentages, number defectives, ranges) and acceptance sampling plans (single and double). Standard sampling techniques such as MIL STD plans will be reviewed.

STA 4905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

STA 5126/PSY 5206 Design of Experiments in Psychological Research (3). The following topics will be included as they relate to psychological research: A review of analysis of variance in randomized and blocked designs, pairwise and multiple comparison tests, analysis of variance in factorial, nested and split-plot experiments, and analysis of covariance. Computer software packages will be used for some analyses. Prerequisites: STA 3122 and STA 3123 or equivalent.

STA 5206 Design of Experiments (3). This is an applied course dealing with the design and analysis of experiments employed in scientific and industrial research. A knowledge of the basic fundamentals of hypothesis testing and analysis of variance is assumed. Topics include: multiple comparision tests, completely randomized design, randomized blocks, Latin Square and related designs, nested and factorial experiments. Prerequisites: STA 3322 or STA 3164

STA 5207 Topics in Design of Experiments (3). This applied course in design of experiments covers topics such as split-plot design, confounding, fractional replication, incomplete block designs, and response surface designs. Prerequisite: STA 5206.

STA 5236 Regression Analysis (3). The matrix approach to linear regression. Analysis of residuals. Multiple linear regression. Model building techniques including robust regression methods, criteria for best model selection, influence diagnostics. Prerequisites: STA 3164 or STA 3123 and MAS 3105.

STA 5446-STA 5447 Probability Theory I and II (3-3). This course is designed to acquaint the student with the basic fundamentals of probability theory. It reviews the basic foundations of probability theory, covering such topics as discrete probability spaces, random walk, Markov Chains (transition matrix and ergodic properties), strong laws of probability, convergence theorems, and law of iterated logarithm. Prerequisite: MAC 3313.

STA 5676 Reliability Engineering (3). The course material is designed to give the student a basic understanding of the statistical and mathematical techniques which are used in engineering reliability analysis. A review will be made of the basic fundamental statistical techniques required. Subjects covered include: distributions used in reliability (exponential, binomial, extreme value, etc.); tests of hypotheses of failure rates; prediction of component reliability; system reliability prediction; and reliability apportionment. Prerequisite: STA 3322.

STA 5800 Stochastic Processes for Engineers (3). Probability and conditional probability distributions of a random variable, bivariate probability distributions, multiple random variables, stationary processes, Poisson and normal processes. Prerequisites: STA 3033, MAC 3313, MAP 3302.

STA 5826 Stochastic Processes (3). This course is intended to provide the student with the basic concepts of stochastic processes, and the use of such techniques in the analysis of systems. Subjects include: Markov Processes, queuing theory, renewal processes, birth and death processes, Poisson and Normal processes. Applications to system reliability analysis, behavioral science, and natural sciences will be stressed. Prerequisite: STA 5447.

STA 5906 Independent Study (VAR). Individual conferences, assigned reading, and reports on independent investigation.

STA 6166 Statistical Methods in Research I (3). STA 6167 Statistical Methods in Research II (3). For non-mathematical sciences graduate students. A non-calculus exposition of methods and applications of statistical techniques for the analysis of data. Statistical packages will be used. Prerequisite: Graduate standing.

STA 6807 Queuing and Statistical Models (3). Review of probability concepts, basic probability distributions, Poisson process, queuing models, statistical models. Prerequisites: Permission of Instructor, MAC 3312 and either STA 3033 or STA 3321.

STA 7707 Multivariate Methods (3). Review of linear algebra. Topics include multiple regression, one and two sample multivariate analysis, profile analysis, multivariate analysis of variance, principal component and factor analysis. Computer software packages will be used for some analyses. Prerequisites: STA 3122 and STA 3123 or equivalent. Linear algebra and STA 5126 recommended.

Theatre and Dance

Therald Todd, *Associate Professor and Chairperson*
Patrice Bailey, *Instructor*
Lee Brooke, *Assistant Professor*
Philip Church, *Associate Professor*
Denise Kraus, *Instructor*
Mary Ellen O'Brien, *Assistant Professor*
Marilyn Skow, *Assistant Professor*

Degree: **Bachelor of Fine Arts**

The goal of the theatre program is to provide intensive theatre training through classes and productions conducted with professional theatre discipline and the highest possible aesthetic standards. In addition to completion of course work, theatre majors are required to participate in all of the major productions presented while the student is enrolled in the Theatre Program. Students will complete the core courses and select a specialization in either Acting or Production.

The degree requirements represent a four year program. Upper division transfers must have their lower division preparation evaluated by the department and will be advised accordingly.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Required Courses: (46 semester hours)

THE 2020	Introduction to Theatre	3
TPP 2110	Acting I	5
TPP 2111	Acting II	5
TPA 3010	Scenic Design I	3
TPA 3210	Stagecraft I	3
TPA 3220	Stage Lighting I	3
TPA 3230	Stage Costuming I	3
TPA 3250	Stage Make-up	3
TPA 3290L	Technical Theatre Lab I	1
TPA 3291L	Technical Theatre Lab II	1
TPA 3292L	Technical Theatre Lab III	1

TPA 3293L	Technical Theatre Lab IV	1
TPP 3310	Directing	3
TPA 3650	Playscript Analysis	3
THE 4110	Theatre History	3
THE 4111	Theatre History II	3
THE 4970	Senior Project	2

Additional required courses for the Acting specialization (55 semester hours):

TPP 3112	Acting III	3
TPP 3113	Acting IV	3
TPP 4820	Actor's Workshop	3

Additional required courses for the Production specialization (55 semester hours):

TPA 3930	Special Topics in Technical Production	3
TPA 4400	Theatre Management	3

and one course selected from the following:

TPA 4061	Scenic Design II
TPA 4201	Stagecraft II
TPA 4221	Stage Lighting II
TPA 4231	Stage Costuming II

Minor in Theatre
Required Courses: (23 semester hours)

THE 2020	Introduction to Theatre	3
TPP 2110	Acting I	5
Theatre Electives (upper division)		12

A grade of 'C' or higher in all courses required for the major is necessary for graduation.

Course Descriptions

Definition of Prefixes
DAA—Dance Activities; ORI—Oral Interpretation; SPC—Speech Communication; THE—Theatre; TPA—Theatre Production and Administration; TPP—Theatre—Performance and Performance Training.

DAA 3100 Modern Dance Technique I (2). Development of techniques and understanding of the art form of contemporary dance. May be repeated.

DAA 3101 Modern Dance Technique II (3). A continuation of basic techniques and understanding of the art form of contemporary dance. Prerequisite: DAA 3100 or permission of instructor. May be repeated.

DAA 3102 Modern Dance Technique III (3). A continuation of Modern Dance I and II with an emphasis on skills in movement style and phrasing necessary to perform modern dance repertory. Prerequisite: DAA 3101 or permission of instructor.

DAA 3200 Ballet Technique I (2). Development of techniques and understanding of ballet. May be repeated.

DAA 3201 Ballet Technique II (3). A continuation of basic the techniques and understanding of ballet. Prerequisite: DAA 3200 or permission of instructor. May be repeated.

DAA 3280 Ballet Variations I (1). Introduction of fundamentals for development of pointe technique. May be repeated. Prerequisite: Permission of Instructor.

DAA 3420 Modern Dance Repertory (1). The study and practice of works in the modern dance repertory. May be repeated. Prerequisite: Permission of instructor.

DAA 3500 Jazz Dance Techniques (2). Development of the dance techniques and understanding of jazz dance. May be repeated.

DAA 3700 Dance Composition I (3). A study of the principles of composition - emphasis on improvisation to explore structure and form in dance. Prerequisite: Permission of instructor.

DAN 2100 Introduction to Dance (3). A study of western dance, introducing its history and its contemporary forms leading to an awareness and appreciation of the art of dance through movement, lecture, and film.

DAN 4110 Dance History (3). An introduction to the history of western dance from its beginnings to the present time.

ORI 3000 Basic Oral Interpretation (3). Development of the voice as an instrument for expressive interpretation of literature.

ORI 3001 Intermediate Oral Interpretation (3). A continuation of the basic techniques of oral interpretation with emphasis on program development. Programs will include poetry, prose, and drama. Prerequisite: ORI 3000.

PGY 3020 Introduction to Film making (3). For the beginning student of film making. Survey of the origins and development of cinematography as an art form. Presentation and technical analysis of selected films.

SPC 2600 Public Speaking (3). Study of the principles of ethical and effective public speaking, with practice in the construction and delivery of original speeches before an audience.

SPC 3513 Argumentation and Debate (3). Lectures and activities concerned with audience-centered reasoning. Topics include: Nature of argument, analysis, reasoning, evidence, values, and building and refuting arguments. Prerequisite: SPC 2600 or permission of instructor.

THE 2000 Theatre Appreciation (3). A study of theatre: process and product, introducing the past of theatre, its literature and traditions; and the means by which theatre is produced: acting, directing and visual design.

THE 2020 Introduction to Theatre (3). An intensive introduction to theatre, its nature, history and production processes. For theatre majors and minors or students with theatre background.

THE 3051 Children's Theatre (3). Techniques of selection, production, and performance of plays for children.

THE 4110 Theatre History I (3). The development of the theatre from its origins to the early 19th century.

THE 4111 Theatre History II (3). The development of the theatre from early 19th century to the present.

THE 4370 Modern Dramatic Literature (3). Intensive play reading and discussion from early modern through contemporary.

THE 4820 Creative Dramatics (3). The study of informal drama activity with children. Techniques of improvisation, sense recall, music, and movement are employed.

THE 4916 Research (1-5). Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.

THE 4950 Theatre Internship (1-15). Supervised internship in a professional company in acting, directing, stage management, design, technical theatre, or theatre management.

THE 4970 Senior Project (2). Preparation of a final creative project in the student's area of emphasis under the direction of a faculty advisor. Prerequisite: Prior arrangement with advisor.

THE 5916 Research (1-5). Supervised individual investigation in special research projects. Credit will vary with the nature and scope of the project. May be repeated.

TPA 3010 Scenic Design I (3). Fundamentals of designing effective settings for the play. Discussion and practice in: analysis, research, the creation of appropriate and exciting environments for the actor, and basic skills in rendering and model making. Prerequisite (for Theatre majors): TPA 3210.

TPA 3071 Stage Rendering (3). An introduction to the techniques used in rendering scenery and costume design concepts. Recommended as preparation for TPA 3010 and TPA 4230.

TPA 3210 Stagecraft I (3). An introduction to construction techniques used in stage. Direct experience with wood and metal working tools, blueprint reading, and various materials including wood, metal, plastics and fabrics. Lecture and laboratory.

TPA 3220 Stage Lighting (3). Familiarization with stage lighting equipment, purposes, and aesthetics of stage lighting; development of an approach to designing lighting; practical experience in the use of equipment. Lecture and laboratory.

TPA 3230 Stage Costuming I (3). Fundamentals of costume design. Study of period, character, and concept. Familiarization with fabrics and techniques of construction and trim.

TPA 3250 Stage Make-up (3). Fundamentals of straight and character makeup. Use of greasepaint and three dimensional techniques.

TPA 3290L Technical Theatre Lab I (1). Supervised crew work in construction, painting, lighting, costuming, and running major productions. Required of Theatre majors.

TPA 3291L Technical Theatre Lab II (1). Supervised crew work. Required of Theatre majors.

TPA 3292L Technical Theatre Lab III (1). Supervised crew work. Required of Theatre majors.

TPA 3293L Technical Theatre Lab IV (1). Supervised crew work. Required of Theatre majors. Prerequisite: TPA 3292L.

TPA 3930 Special Topics in Technical Production (1-3). Lecture-lab studies in particular areas of theatre production, one area per semester, including stage management, prop making, sound design, special effects.

TPA 4061 Scenic Design II (3). Advanced skills in setting the mood of, and creating movement through a theatrical space. Emphasis will be placed upon rendering techniques and model making. Prerequisite: TPA 3010.

TPA 4201 Stagecraft II (3). Advanced problems in the construction and movement of scenery, properties, and special effects. Prerequisite: TPA 3200.

TPA 4221 Stage Lighting II (3). Advance work in lighting of the stage. Emphasis is on practical training and experience through drafting of light plots accompanied by discussion and evaluation. Prerequisite: TPA 3220.

TPA 4231 Stage Costuming II (3). Advanced skills in designing, rendering, and construction costumes. Includes pattern making and charting the show. Prerequisite: TPA 4230.

TPA 4400 Theatre Management (3). Survey of all aspects of theatre administration: budget planning and maintenance; public relations; box office and house management; unions and contracts.

TPP 2110 Acting I (5). Development and training of basic skills: use of self, stage terminology, stage voice and movement. Intended for the serious theatre student.

TPP 2111 Acting II (5). A continuation of the development and training of basic skills: improvisation, scripted dialogues, voice and movement. Use of self in scene work. Prerequisite: TPP 2110.

TPP 3100 Introduction to Acting (3). An introduction to the acting process. Self awareness, physical and vocal control, basic stage technique and beginning scene work will be studied. Intended for the student with little or no acting experience.

TPP 3112 Acting III (3). Continuation of the development and training of acting skills with an emphasis on characterization. Prerequisite: TPP 2111.

TPP 3113 Acting IV (3). Continuation of the development and training of acting skills with emphasis on a variety of styles. Prerequisite: TPP 3112.

TPP 3250 Musical Theatre Workshop (3). An introduction to Musical Comedy performance: integration of the dramatic, musical and movement components will be studied through work on selected scenes.

TPP 3282 Theatre Speech and Movement (2). Development of the actor's two main instruments: the voice and the body.

TPP 3310 Directing (1). Basic principles of play direction; including problems of selecting, analyzing, casting, and rehearsing plays. Prerequisites: TPP 2111 and TPP 3650.

TPP 3650 Playscript Analysis (3). Detailed playscript examination for directors, actors and designers, focusing on identification of those elements upon which successful theatre production depends.

TPP 3730 Dialects (3). A study of dialects common to western theatre. TPP 4311 Directing II (3). A continued study of direction techniques culminating in the preparation of a play for public performances. Prerequisite: TPP 3310.

TPP 4311 Directing II (3). A continued study of directing techniques culminating in the preparation of a play for public performance. Prerequisite: TPP 3310.

TPP 4531 Stage Combat (3). A study of combat techniques for the stage, including fencing, boxing, wrestling, and tumbling.

TPP 4600 Playwriting (3). Study of the theory and principles of writing plays for the stage. Practice in writing either the short or long play. May be repeated.

TPP 4920 Actor's Workshop (3). This course will concentrate on the Acting demands of a specific period, style, genre, or playwright. Prerequisite: TPP 3113 or permission of instructor.

Visual Arts

William Maguire, *Associate Professor and Chairperson*
Ralph F. Buckley, *Associate Professor*
William Burke, *Associate Professor*
James M. Couper III, *Professor*
Eduardo Del Valle, *Assistant Professor*
Richard Duncan, *Associate Professor*
Mirta Gomez, *Assistant Professor*
Ellen Jacobs, *Professor*
Dahlia Morgan, *Lecturer/Art Museum Director*
Manuel Torres, *Assistant Professor*
Barbara Watts, *Assistant Professor*
Sandra Winters, *Assistant Professor*
Francis Wyroba, *Professor*

Degree: **Bachelor of Fine Arts**

Lower Division Preparation

Required Courses Art Survey I & II	6
2-D and 3-D Design	6
Basic Drawing and Figure Drawing	6
Beginning Studio Courses	6

Recommended Studio Courses: Painting, Sculpture, Printmaking, Ceramics, Photography, Jewelry, Glass, Drawing.

Remarks: The student who does not have an A.A. degree or who lacks proficiency in required courses, or both, will be expected to take more than 60 semester hours to complete the bachelor's degree, or to make up courses at the lower division level.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)
Required Courses: (39 semester hours)

ARH 4450	20th Century Art	3
ARH 4470	Contemporary Art	3
Art History Elective (upper division)		3
Studio Major		15-18
ART 4955	Thesis and Portfolio	3
Studio Electives outside of major		12-21
Electives outside of Visual Arts Department		12-21

Minor in Visual Arts (18 semester hours)

ARH 4450	20th Century Art	3
ART 3310	Drawing	
or		
ART 3331	Figure Drawing	3
ART Electives in Studio (upper division)		12

Minor in Art History (18 semester hours)

ARH 4450	20th Century Art	3
ARH 4470	Contemporary Art	3
ART Studio Elective (upper division)		3
ARH Electives (upper division)		9

Course Descriptions

Definition of Prefixes

ARH—Art History; ART—Art; HUM—Humanities.

ARH 2050 Art History Survey I (3). A broad survey of the visual arts and architecture from the Paleolithic Period through the Middle Ages.

ARH 2051 Art History Survey II (3). A broad survey of the visual arts and architecture from the Renaissance through the Modern Age.

ARH 3009 Survey of Contemporary Art (3). A survey of the most recent developments in the fields of visual arts and architecture, through lectures, films and speakers. Open to all students.

ARH 3350 Baroque Art (3). European art of the 17th and early 18th centuries. Artists to be studied include Bernini, Caravaggio, Velasques, Vermeer, Rembrandt, Rubens, Poussin, La Tour, and Watteau. Prerequisite: ARH 2051.

ARH 4014 History of Decorative Arts (3). A survey of the more important and influential periods in history in the production of ceramics, fabrics, glass, jewelry and silversmithing. Slides, lectures, student research.

ARH 4131 Greek Art (3). Lectures, slides, research. The Art of Greece from the Bronze Age through the Classical Period.

ARH 4151 Roman Art (3). Lectures, slides, research. The Art of Ancient Rome from the Early Iron Age through the Late Roman Empire.

ARH 4310 Early Italian Renaissance (3). Lectures, slides, research. From the origins of Italian Renaissance in the Late Gothic Period to the Early 15th Century.

ARH 4312 Later Italian Renaissance (3). Lectures, slides, research. The Art of Italy in the later 15th and 16th Century.

ARH 4400 Primitive Art (3). An introduction to the art of widely dissimilar groups from areas on the margin or beyond the cultural influences of Europe, the Near East, India, China, and Japan. Emphasis will be placed on African, Oceanic, and North America Indian Art.

ARH 4430 Art and Politics (3). An investigation into the interrelationship between art and political issues, with emphasis on the 19th and 20th centuries.

ARH 4431 19th Century Painting (3). A study of Neoclassicism, Romanticism, Realism, and Impressionism. Artists to be considered include David, Ingres, Gericault, Delacroix, Goya, Courbet, Manet, Degas, Monet, and Renoir.

ARH 4450 20th Century Art (3). Lectures, films, slides. A survey of European and American Art from 1890-1945.

ARH 4470 Contemporary Art (3). Lectures, slides, visitors and student research. A survey of art from 1945 to the present.

ARH 4552 Art of China and Japan (3). An introduction to the art of China to the Ming Dynasty and of Japan through the 18th century. The emphasis will be on painting and sculpture, with some ceramics and architecture.

ARH 4610 American Art (3). A survey of American painting from the Colonial period to the eve of World War I. Artists to be studied include Copley, West, Cole, Whistler, Sargent, Homer, Henri, and Bellows.

ARH 4650 Pre-Columbian Art (3). Slides, lectures, research. A survey of Pre-Colombian Art from approximately 2000 B.C. to 1500 A.D. of Mesoamerica. (Intermediate area from Honduras to Columbia and the Andes).

ARH 4670 20th Century Latin American Art (3). Lectures, films, slides. The Art of Central, South America and the Caribbean of the Twentieth Century.

ARH 4710 History of Photography (3). A chronological examination of the work of the world's most significant photographers, from photography's invention in the 1830's to the present.

ARH 4832L Art Gallery and Display (1-3). The study and participation of all aspects of Gallery operations, from daily operation to special exhibitions and events. Permission of Gallery Director.

ARH 4905 Directed Studies (VAR). A group of students, with the approval of the art faculty, may select a master teacher of theory, research or criticism in selected areas as film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated.

ARH 4910 Research (VAR). Art history, criticism, and theory in areas not covered by the present program and which the student wishes to study. Prerequisite: Permission of instructor. May be repeated.

ARH 4931 Women and Art (3). Women in the history of art; past, present and future. Slides, lectures, films, panels and discussions.

ARH 5907 Directed Studies (VAR). See ARH 4905.

ARH 5913 Research (VAR). See ARH 4910.

ART 1201C 2D Design (3). Studio course introducing the basic art elements such as line, value, and color to develop the students vocabulary and awareness of two-dimensional potential in various media.

ART 1202C 3D Design (3). Studio course introducing the basic elements inherent in three-dimensional works of art. Shape, mass, balance, proportion, and scale are elements which will be explored.

ART 3111C Ceramics (3). A beginning course for art and non-art majors. Fundamentals of throwing, hand-building, and glaze application. May be repeated.

ART 3112C Intermediate Ceramics (3). An in-depth study of ceramic forms concentrating on wheel techniques focusing on functional design, glazing and applicable firing processes. Prerequisite: ART 3111C.

ART 3115C Low Temperature Ceramics (3). An in- depth study of low-temperature clays and glazes, and exploration of a variety of glazing and firing techniques, including lustres, residual salt, raku, white and red earthenware, etc. Prerequisite: ART 3111C.

ART 3133C Fabrics and Fibers (3). A creative approach to fabrics and fibers, using processes such as dyeing, embroidery, quilting, soft sculpture, batik, on and off loom weaving, etc. May be repeated.

ART 3150C Jewelry and Metals (3). A study of basic metal techniques and strengthening of three- dimensional design concepts for the beginner. The advanced student will explore the more difficult technical aspects of areas such as hollow ware, enameling, casting, and stone setting. May be repeated.

ART 3163C Glassblowing (3). A basic course in off- hand glass blowing, concerned with preparing, forming, and finishing glass; understanding of glass as an art form; operation and maintenance of a glass studio. May be repeated.

ART 3310C Drawing (3). Drawing will be considered as an essential part of every art student's curriculum. Depending on his lower level work, a student will be encouraged to take at least one drawing course at the University. Off-campus studio work may be arranged. May be repeated.

ART 3331C Figure Drawing (3). Drawing from the model during assigned studio time. Open to all students. May be repeated. Prerequisite: ART 3310C.

ART 3401C Printmaking (3). With a knowledge of basic intaglio and relief printing, the student will explore specific media such as etching, lithography, silk-screen and other experimental techniques. May be repeated.

ART 3510C Painting (3). Stresses development of idea and technique in creating paintings. Demonstration, lecture, field trips and critiques included. Strong emphasis on individual development. Prerequisites: ART 1201C and ART 3310C. May be repeated.

ART 3702C Sculpture (3). With a background in beginning sculpture, the student will develop standards of excellence, both in concept and technique, with stress on individual expression. An equipped shop will be available to the student. May be repeated.

ART 3830C Color Theory (3). This course is designed to familiarize the student with the theory and principles of color as it relates to the arts. Lecture, demonstration, and application through assigned projects will be included.

ART 3831C Materials and Techniques (3). Instruction in the craft of painting. Demonstration and exercise in the following will be included: color, pigments, ground, all major media, studio and equipment.

ART 3949C Cooperative Education in Visual Arts (3). A student majoring in Visual Arts may spend several semesters fully employed in industry in a capacity relating to the major. Prerequisite: Permission of chairperson.

ART 4114C Ceramics (3). The advanced student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisite: ART 3111C, or permission of the instructor. May be repeated.

ART 4116C Glaze and Clay Calculation (3). The study of the nature, formulation and altering of ceramic glazes and clays.

ART 4133C Fabrics and Fibers (3). See ART 3133C.

ART 4151C Jewelry and Metals (3). See ART 3150C.

ART 4164C Glassblowing (3). See ART 3163C.

ART 4320C Drawing (3). See ART 3310C.

ART 4332C Figure Drawing (3). See ART 3331C.

ART 4402C Printmaking (3). See ART 3401C.

ART 4532C Painting (3). An advanced course concentrating on conceptual clarity and the realization of stylistic development. Group, individual criticism will be emphasized. May be repeated. Prerequisites: ART 3510C or equivalent. Suggested prerequisites: ART 3831C and ART 3803C.

ART 4703C Sculpture (3). See ART 3702C.

ART 4710C Figure Sculpture (3). To develop skills in representational structure and anatomy from the model and learn moldmaking techniques. May be repeated.

ART 4906C Directed Study (VAR). A group of students, with the approval of the Visual Arts Department faculty, may select a master artist teacher and pursue a course of art study in selected areas such as graphic design, film, multi-media, environmental design, sound, etc. Arrangements must be made at least one semester before course is offered. May be repeated.

ART 4910C Research (VAR). Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. May be repeated.

ART 4949C Cooperative Education in Visual Arts (3). See ART 3949C.

ART 4955C Thesis and Portfolio (3). Studio work in student's major area with major professor, resulting in a student exhibit. Arrangements with major professor one semester before graduation. Written thesis required. Prerequisite: 15 semester hours of studio major. (Fall and Spring only).

ART 5125C Ceramics (3). See ART 4114C.

ART 5133C Fabrics and Fibers (3). See ART 3133C.

ART 5159C Jewelry and Metals (3). See ART 3150C.

ART 5165C Glassblowing (3). See ART 3163C.

ART 5340C Drawing (3). See ART 3310C.

ART 5341C Figure Drawing (3). See ART 3331C.

ART 5403C Printmaking (3). See ART 3401C.

ART 5580C Painting (3). A continuation of ART 4532C. May be repeated.

ART 5710C Figure Sculpture (3). See ART 4710C.

ART 5730C Sculpture (3). See ART 3702C.

ART 5907C Directed Study (VAR). See ART 4906C.

ART 5910C Research (VAR). See ART 4910C.

PGY 3410C Photography (3). Beginning course in photography and basic darkroom work; introduction to the tradition of still photography. Includes frequent critique of student work. May be repeated.

PGY 4420C Photography (3). An advanced course for majors and accomplished nonmajors. Includes demanding critique of student's work. May be repeated. Prerequisite: PGY 3410C or permission of instructor.

PGY 5420C Photography (3). See PGY 4420. May be repeated. Prerequisite: PGY 3410 or permission of instructor.

Certificate Programs

American Studies Certificate Program

Darden A. Pyron, *Director (History)*
Coordinating Committee:
Tucker Arnold *(English)*
Lynn Berk *(English)*
Eric Leed *(History)*
Howard Rock *(History)*
Donald Watson *(English)*

The American Studies Certificate Program provides the opportunity for students to examine the nature of American civilization through an interdisciplinary study of American history, literature, culture, and thought. The program provides a grounding in American literature and American history, a sampling of how each discipline approaches the study of American civilization, and an opportunity to follow the approaches of political science, anthropology, philosophy, and religion. Through a seminar in American studies, students will apply the insights of the various disciplines to problems of their own choosing.

The Certificate in American Studies is awarded with a bachelor's degree, or upon completion of Certificate requirements, to a student who already possesses that degree.

General Requirements: A total of seven courses chosen among the prescribed certification courses with a grade of 'C' or higher.

Specific Requirements

AML 3104	Survey of American Literature I	3
AML 3109	Survey of American Literature II	3

Two consecutive semesters chosen from the following:

AMH 3012	American History 1600-1763	3
AMH 3100	American History 1607-1850	3
AMH 3200	American History 1850 to the present	3
AMS 4938	Seminar in American Studies	3

Two electives chosen from the following:

POT 4204	American Political Thought	3
ANT 3402	Anthropology of Contemporary Society	3
PHH 3700	American Philosophy	3
REL 3100	Religion and Culture	3

An appropriate American Literature course.
An appropriate American History course.

Consumer Affairs Certificate Program

Milton L. Blum, *Director (Psychology)*
Advisory Committee:
Yao Apasu, *(Marketing and Environment)*
Paul W. Foos, *(Psychology)*
Greta Howard, *(Apparel Studies)*
Shearon Lowery, *(Sociology/Anthropology)*
Samuel Shapiro, *(Mathematical Sciences)*

The Certificate Program in Consumer Affairs provides a sound educational base for those dealing with consumer affairs, be they buyers, sellers, or users of products and services. Courses leading to the Certificate can serve those pursuing careers in consumer affairs, as well as provide personal benefit to individuals in their role as consumers.

The number of issues and conflicts involving consumers, business, government, and labor demand study and research so that more appropriate resolutions can be achieved.

The Certificate Program is intended to provide business, government, education, industry, and labor with a resource for educating selected personnel in a broad range of subject matter related to consumer affairs. For more information on the program, please contact the director in DM 339B, University Park, 554-3277.

Required Courses The Certificate will be awarded upon satisfactory completion of six courses from among those listed below. Students are admitted to the program provided proper application has been made to the director.

Group I: (Choose three courses)

COA 410	Consumer Resources	3
ECO 3021	Economics, Man and Society - Macro	3
EVR 3011	Environmental Resources and Pollution	3
MAR 4503	Consumer Behavior	3
SOP 4645	Consumer Psychology	3
SYP 4421	Man, Society, and Technology	3

Group II: (Choose three courses)

COA 4460	Consumer and Technology	3
COA 5450	Consumer Legislation	3
EVR 3010	Energy Flow in Natural and Man-made Systems	3
FOS 3004	Food and the Consumer	3
MAN 3503	Managerial Decision Making	3
MAN 4151	Behavioral Science in Management	3
SOP 4649	Experimental Consumer Psychology	3
SOP 4649L	Experimental Consumer Psychology Lab	2
SYP 4321	Mass Culture	3

Note: Students may substitute an independent research project working with any professor provided the professor approves the request and final approval is obtained in writing from the Program Director.

Environmental Studies Certificate Program

J. Parker, Director *(Chemistry)*
Coordinating Committee
J. Gottlieb *(Political Science)*
J. Huchingson *(Philosophy and Religious Studies)*
S. Koptur *(Biology)*

The Certificate Program in Environmental Studies is designed to provide students in various majors with the unique perspective of interdisciplinary ecological education to both enrich and expand the breadth of their primary training. The Certificate seeks to provide participants with an analytic basis for understanding the milieu of local and global environmental problems and processes.

The program requires no prerequisite and is complementary to majors in all disciplines and schools at the University. This certificate is appropriate also for persons who already have a degree but would like to increase their knowledge of contemporary environmental issues.

General Requirements: Six courses as follows:

1.

EVR 3010	Energy Flow in Natural and Man-Made Systems	3
EVR 3011	Environmental Resources and Pollution	3
EVR 3013C	Ecology of South Florida	4
or		
EVR 4211	Water Resources	3
EVR 4311	Energy Resources	3
EVR 4231	Air Resources	3

2.

PUP 4203	Environmental Politics and Policies	3

3.
Two courses from the following, at least one of which must be from the Social Sciences or Humanities:

ANT 3403	Cultural Ecology	
ANT 4552	Primate Behavior and Ecology	
BOT 2010C	Plant Biology	
ECP 3302	Introduction to Environmental Economics	
ECP 4314	Land and Resource Economics	
ENT 3004	General Entomology	
EVR 3013C	Ecology of South Florida	
EVR 4211	Water Resources	
EVR 4231	Air Resources	
EVR 4311	Energy Resources	
EVR 4905	Independent Study	
EVR 5907	Research and Independent Study	
EVR 5935	Special Topics	
EVR 5936	Topics in Environmental Studies	
GEO 3510	Earth Resources	
GLY 3850	Environmental Geology	
INR 3043	Population and Society	
INR 4054	World Resources, World Order	
MCB 4603	Microbial Ecology	
PCB 3043	Ecology	
REL 3440	Man and Nature	
SOP 4712	Environmental Psychology	
URP 4149	Planning and Human Ecology	
ZOO 3892C	Biology of Captive Wildlife	
ZOO 4423	Herpetology	
Total Credit Hours:		18-19

Ethnic Studies Certificate Program

John F. Stack, Jr., *Director (Political Science)*
Coordinating Committee
Ralph S. Clem *(International Relations)*
Anthony P. Maingot *(Sociology/Anthropology)*
Mark D. Szuchman *(History)*

The College of Arts and Sciences offers the student a program in ethnic studies, in recognition of the place ethnic studies enjoys in the social sciences and humanities, and the importance of ethnic studies in today's world. The Program seeks to establish a proper balance between its academic goals and objectives and the on-going concerns of the University's local and international constituencies. The Program contains four specialized areas: Black Studies, Jewish Studies, Cuban Studies, and Comparative Studies. The Certificate in Ethnic Studies is awarded with a bachelor's degree or upon completion of Certificate requirements, to a student who already possesses that degree. The Certificate will specify the area of concentration chosen by the student.

A student may acquire the Certificate in Ethnic Studies by fulfilling the following requirements:

General Requirements: A minimum of six courses with a grade 'C' or higher. Courses in both the 'Core' and 'Specialized' areas (indicated below) must be taken from at least two different departments.

A maximum of one course in a relevant language will be accepted.

A maximum of two courses of independent study will be accepted.

The Program Director must approve the student's overall plan and all special topics courses must be approved by Certificate advisors in each area. The Program is especially eager to encourage programs of study abroad and field work in general. Credit for such programs will be awarded on an individual basis after evaluation by the Director and the Coordinating Committee, but in no case will it consist of more than three courses towards the Certificate.

Specific Requirements: A core of a minimum of two to three courses in a theoretical and conceptual nature in the area of ethnic studies

A minimum of three to four specialized courses in one of the four distinct areas: Black Studies, Jewish Studies, Cuban Studies, Comparative Studies.

Core Courses: SYD 4700 or ANT 4451: Minorities; PUP 4314: Ethnic Politics; INR 4084: Ethnicity in World Politics; INR 4024: Ethnicity and Nationality; ECP 3144: Economics of Race and Sex Discrimination; SOP 4444: Attitudes and Ethnicity.

Specialized Courses: (*Note:* This is not an exhaustive list; students should consult with the Director of the program on current offerings.)

Specialized Courses in Cuban Studies

ECS 4430	The Economic Development of Cuba	3
FOW 4390	Genre Studies (with reference to Cuban Literature)	3
INR 3246	International Relations of the Caribbean	3
LAH 3930	Cuban History	3
SYD 4630	Latin American and Caribbean Social Structures	3
SYA 4124	Social Theory and Third World Innovations	3

Specialized Courses in Black Studies

AML 5212	Major American Literary Figures	3
ANT 4315	Afro-American Anthropology	3
ANT 4352	Area Studies	3
LIT 4203	Regional Literature in English	3
LIT 4930	Special Topics	3
MUH 3116	Evolution of Jazz	3
SYD 4701	Social Conflict in Multi-Ethnic Societies	3

Specialized Courses in Jewish Studies

GEA 3630	Population and Geography of the Middle East	3

INR 3274	International Relations of the Middle East	3
POS 4147	Political Urban Jewish Leadership	3
REL 3224	The Prophets	3

Gerontological Studies Certificate Program

Gordon E. Finley, *Director (Psychology)*
Coordinating Committee
Reba L. Anderson *(Occupational Therapy)*
Leon A. Cuervo *(Biological Sciences)*
Charles A. Frankenhoff *(Health Services Administration)*
Shearon A. Lowery *(Sociology/Anthropology)*
Martha Pelaez *(Southeast Florida Center on Aging)*
Florence Safford *(Social Work)*

The Certificate Program in Gerontological Studies is an undergraduate, academic certificate program designed to complement the student's major area of study.

The goals of the program are: (1) to stimulate interest in the study of aging; (2) to provide an introduction to the field of gerontology from a multidisciplinary perspective; (3) to provide foundation courses for advanced study in gerontology; and (4) to provide students seeking employment upon graduation with a sound background which will make them attractive to employers.

The State of Florida has the largest percentage of persons over 65. Demographic projections indicate that not only will Florida continue to increase its percentage of older persons, but so will the nation as a whole. Thus, it has become imperative that gerontological knowledge be increased and shared. This is critical, both for individuals to function as informed citizens and for enhanced gerontological teaching, research, and service.

The present certificate program seeks to meet these needs by providing a multidisciplinary approach to the study of aging. The Certificate in Gerontological Studies is awarded with a bachelor's degree, or on completion of Certificate requirements to a student who already possesses that degree. Interested students should meet with the director early to plan an individualized program to meet the student's educational or occupational goals.

Certificate Requirements: (16-17)

1. A minimum of six courses must be completed with a grade of 'C' or higher in each course.
2. Courses must be taken from at least three different disciplines.
3. Electives must be taken from three different categories listed below.
4. Up to two gerontologically relevant courses taken elsewhere may be accepted by the director.
5. Students should contact the director during registration for a list of certificate courses offered each semester.

Required Courses: (8)

DEP 4464	Psychology of Aging	3
SYP 4730	Sociology of Aging	3
PCB 3241	Physiology of Aging	2

Elective Courses (8-9)

Aging in the Context of the Life-Span

DEP 3000	Human Growth and Development	3
FAD 4230	Family Life Cycle	3
CCJ 3033	Crime and the Elderly	3

Death and Dying

SYP 4740	Sociology of Death	3
PHM 4050	Philosophy of Death	3

Health and Rehabilitation

OTH 3160	Adaptive Living Skills	2
PHT 3400	Emotional Aspects of Physical Disability	2
SOP 4834	Psychology of Health and Illness	3

Nutrition

HUN 3201	Principles of Nutrition	3
HUN 4403	Life Cycle Nutrition	3

Program Administration

GEY 3002	Issues and Trends in Gerontology	3
HSA 4113	Issues and Trends in Health Care	3

Supervised Research/Practicum in Gerontology: (3)
Students wishing to undertake an independent research project or an independent practicum in gerontology should: First obtain the collaboration of a faculty sponsor, and, second, obtain the approval of the certificate director prior to beginning the project by submitting a one page proposal. Credit for the project will be obtained under the appropriate 'independent studies' course in the faculty advisor's department.

International Studies Certificate Program

Farrokh Jhabvala, Director *(International Relations)*
Advisory Council
Robert Farrell *(Ed. Leadership)*
Clair McElfresh *(Undergraduate Studies)*
Laurence Miller *(Library)*
Luis Salas *(Criminal Justice)*
Mark Rosenberg *(Political Science)*
Wunnava Subbarao *(Electrical Engineering)*

International Studies constitutes an important focus for the University. The International Studies Program promotes an interdisciplinary approach to the study of transnational phenomena and awards a Certificate to degree and non-degree students who complete successfully its requirements (stated below). Students pursuing a bachelor's degree may take the Certificate Program to complement their major disciplinary area of study. Those not seeking a degree may take the Certificate Program to obtain a broad and systematic introduction to International Studies. Students interested in this Program should consult with the Director of International Studies.

Program: (Minimum of 18 credits)
At least one of the following courses in International Politics/Relations:

INR 2001	Introduction to International Relations
INR 3002	Dynamics of World Politics
INR 3003	Foundations of International Relations

At least one of the following courses in International Economics/Business:

MAN 3602	International Business
ECO 4701	World Economy
ECO 4703	International Economics

Three semester hours of independent study under faculty supervision during which a research paper will be written. The independent study and the resulting paper must be approved by the program Director. This paper will be discussed in a joint faculty-student seminar.

A minimum of nine semester hours of coursework from courses identified by the program. A list of such courses will be circulated to all students in the program at the start of each semester.

Basic competency (two-semester college level) in a language other than English. Language courses where necessary, will not be included as courses within the 18-semester hour coursework requirement.

A minimum grade of 'C' in each course taken in the program. Courses must be taken in at least three different departments.

Prerequisites that may be required for courses in the program will not be included as courses within the 12-semester hour coursework requirement.

Latin American and Caribbean Studies Certificate Program

Mark B. Rosenberg, *Director (Political Science)*
Douglas Kincaid, *Associate Director (Sociology/Anthropology)*

Latin American and Caribbean Studies represents one way in which the University fulfills its commitment to furthering international understanding. The program in Latin American and Caribbean Studies encourages students to take an interdisciplinary approach to this important area by awarding a Certificate to both degree and non- degree students who successfully complete the Certificate requirements (see below). For students pursuing a bachelor's degree, the Certificate Program should be understood as a complement to the student's regular major area or discipline of study. For non-degree students, the Certificate represents the way in which a better understanding of Latin America and the Caribbean can be gained without pursuing a full course of study at the university.

Students who are interested in the Certificate Program should consult directly with the Associate Director of the Latin American and Caribbean Center (LACC).

LACC has sponsored summer study abroad opportunities since 1981 in Mexico, Puerto Rico, Haiti, and the Dominican Republic. In addition, LACC has placed certificate students in programs sponsored by the Organization of American States in Argentina and Costa Rica for summer study.

An important component for the Latin American and Caribbean Studies program at the University is the Library. In the recent past, the Latin American and Caribbean acquisitions program has concentrated on establishing a sound resource base for undergraduate research and study. In addition, community and federal support has allowed the acquisition of a number of specialized collections, particularly from Colombia, Cuba, and the Central American nations. Traditional written sources are supplemented by a film collection of over one hundred titles, as well as a number of Latin American art works and slides. The Library also receives a large number of periodicals and research reports from Latin American and Caribbean institutions.

Certificate Requirements: (18)
A minimum of 15 semester hours with a grade of 'C' or higher in courses certified by the program. Courses must be taken from at least three different disciplines.

A requirement of three semester hours of independent study under faculty supervision during which a research paper will be written.

The introductory language sequence in Spanish, Portuguese, or French, or exemption through demonstrated proficiency as determined by the Department of Modern Languages. The language sequence will not count toward the 18 semester hour requirement.

The following courses fulfill Certificate requirements. These courses should be understood as a partial list; students should consult with the Associate Director if the Certificate Program in PC 237 about current course offerings.

Anthropology

ANT 3144	Prehistory of the Americas	3
ANT 3251	Peasant Society	3
ANT 3403	Cultural Ecology	3
ANT 3435	The Individual in Anthropolgy	3
ANT 4224	Tribal Art	3
ANT 4324	Mexico	3
ANT 4328	Maya Civilization	3
ANT 4332	Latin America	3
ANT 4334	Comparative Latin American Cultures	3
ANT 4340	Cultures of the Caribbean	3

Economics

ECS 3402	The Political Economy of South America	3
ECS 3440	Economics of Central America	3
ECS 4013	Economic Development	3
ECS 4403	The Latin American Economies	3
ECS 4404	Economic Integration-Latin America	3
ECS 4430	The Economic Development of Cuba-Past and Present	3
ECS 4432	Economic Integration-Caribbean	3
ECS 4433	Economics of the Caribbean	3
ECO 4733	Multinational Corporation	3
ECO 5710	The World Economy	3

Education

EDF 5710	National Education Systems: A Comparative Analysis	3
EDF 5720	Latin American Education: A Historical and Contemporary Overview	3
EDF 5780	Intercultural Education: National and International Perspectives	3
EDG 6425	Macro-Micro Planning in Education	3

Geology

GLY 3157	Elements of Caribbean Geology	3
GLY 4190	Caribbean Earth Sciences Seminar	3
GLY 4792	Caribbean Mineral Resources Field Trip	3
GLY 5620	Caribbean Stratigraphic Micropaleontology	3
GLY 5793	Caribbean Shallow-Marine Environments	3

History

LAH 2092	The Latin Americans	3
LAH 3132	The Formation of Latin America	3
LAH 4433	Modern Mexico	3
LAH 4474	Topics in Caribbean History	3
LAH 4482	Cuba from Bourbons to Castro	3
LAH 4511	Order and Revolution in Argentina	3
LAH 4932	Topics in Latin American History	3
HIS 4450	Slavery in the Americas	3

International Business

MAN 3602	International Business	3
MAN 4600	International Management	3
MAN 4610	International and Comparative Industrial Relations	3
MAN 6635	International Business Policy	3

International Relations

CPO 3326	Population and Geography of the Caribbean	3
GEA 3400	Population and Geography of Latin America	3
INR 3245	International Relations of Latin America	3
INR 3246	International Relations of the Caribbean	3
INR 4247	Caribbean Regional Relations	3

Marketing

MAR 4243	International Marketing	3
MAR 4244	Export Marketing	3
MAR 4713	Cases in Marketing Management	3

Modern Languages

FRE 3500	Civilization I (Latin American course)	3
SPN 3500	Civilization I (Latin American course)	3
FRE 4501	Civilization II (Latin American course)	3
SPN 4501	Civilization II (Latin American course)	3
FRW 3520	Prose and Society (Latin American course)	3
SPW 3520	Prose and Society (Latin American course)	3
SPW 3371	The Latin American Short Story	3
SPW 4304	Latin American Theatre	3
SPW 4351	Spanish American Poetry I	3
SPW 4352	Spanish American Poetry II	3
SPW 4364	The Spanish American Essay	3
SPW 5237	The Traditional Spanish American Novel	3
SPW 5286	Contemporary Spanish American Novel	3
SPW 5358	Prose and Poetry of Jorge Luis Borges	3
SPW 5359	Poetry of Pablo Neruda	3
SPW 5576	Spanish American Modernism	3

Philosophy and Religious Studies

PHH 3042	Latin American Philosophies	3
REL 4481	Contemporary Latin American Religious Thought	3

Political Science

CPO 3303	Government and Politics of South America	3
CPO 3304	Theories of Latin American Politics	3
CPO 3323	Government and Politics of the Caribbean	3
CPO 3333	Government and Politics of Central America	3
CPO 4005	Topics in Comparative Politics	3
CPO 4055	Authoritarianism	3
CPO 4327	Topics in Caribbean Politics	3
CPO 4360	Cuban Politics	3
INR 4244	Latin America in International Politics	3

Psychology

SOP 4004	Social Psychology in Latin America	3

Sociology

SYD 4360	Latin American and Caribbean Social Structures	3
SYD 4610	Area Studies (Latin American and/or Caribbean)	3
SYD 4124	Social Theory and Third World Innovations	3
SYD 4701	Social Conflict in Multi-Ethnic Societies	3

Visual Arts

ARH 4670	20th Century Latin American Art	3

Legal Translation and Court Interpreting Certificate Program

This certificate provides practical and theoretical experience to prepare the student for employment at entry level in the legal translation and interpretation fields. This curriculum does not train specifically for work as conference interpreter, but provides a good background and the experience needed for further study in both legal translation and court interpreting. Through its academic track, it offers complementary studies for the practitioner who wants to strengthen his or her competence in the field. The program consists of 30 semester credit hours.

Prerequisites

SPN 3302	Review grammar and Writing II	3
ENC 3034	Problems in English Composition	3

No credits allowed. These prerequisites may be fulfilled by passing a qualifying examination.

Core Courses: (12)

SPT 3800	Introduction to Translation Skills	3
SPT 3812	Introduction to Oral Translation	3
SPT 4801	Translation Practica	3
SPT 4802	Practica in Oral Translation and Terminology	3

Required Program Courses (12)

SPT 4803	Practica in Legal Translation	3
SPT 4804	Practica in Legal Interpretation	3
SPT 4940	Judicial Translation/ Interpretation Internship	3
SPT 4813	The Interpreter and Language	3

Electives: (6)

BUL 4100	Legal Environment of Business	3
BUL 4111	Business Law I	3
BUL 4112	Business Law II	3
CCJ 3011	The Nature and Causes of Crime	3
CCJ 3020	An Overview of Criminal Justice	3
CCJ 3101	Law Enforcement System	3
CCJ 3290	Judicial Policy Making	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4331	Probation, Parole and Community Program	3
CCJ 4662	Criminal Justice and the Minority Community	3
INR 3403	International Law	3
ORI 3800	Basic Oral Interpretation	3
POS 3283	The Judicial Process	3
POS 3603	Constitutional Law: Powers	3
POS 3604	Constitutional Law: Limitations	3
POS 4284	Judicial Behavior	3
POS 4493	Politics of Judicial Administration	3
RMI 4015	Principles of Insurance	3
SPC 2600	Public Speaking	3
SPN 3415	Communication Arts	3
SYP 3520	Criminology	3

In addition to these subjects, the electives may be chosen from offerings in the departments of Sociology/Anthropology, Computer Science, Economics, International Relations, Modern Languages, and Political Science by securing the approval of the Director of the Translation and Interpretation Program.

Linguistics Studies Certificate Program

Lynn Berk, *Director (English)*
Coordinating Committee
Isabel Castellanos *(Modern Language)*
Virginia Gathercole *(English)*
Tometro Hopkins *(English)*
John Jensen *(Modern Languages)*
Reinaldo Sanchez *(Modern Languages)*
George Kovacs *(Philosophy)*
Peter Machonis *(Modern Languages)*
Paul Foos *(Psychology)*

In addition to an M.A. in Linguistics, the University offers a Certificate acknowledging that a student has demonstrated competence in course work pertaining to the study of linguistics. This Certificate is designed to meet the needs of those who have a general interest in linguistics studies, as well as those for whom work in linguistics would assist in career planning or advancement. Both undergraduate and graduate students are eligible to earn the certificate.

A student can acquire a Certificate in Linguistic Studies by fulfilling the following requirements:

The successful completion of at least six courses in linguistics or linguistics-related courses. These courses are listed below.

Courses must be selected from at least two different departments. Students should consult a Certificate advisor in selecting courses.

With the advice of the Coordinating Committee, the student is encouraged to attain some degree of proficiency in a language other than his or her native language.

In addition to the requirements noted above, all of the requirements for obtaining a bachelor's degree from the University must be met, or the student must possess a bachelor's degree from another institution.

A Coordinating Committee, representing various fields and consisting of faculty engaged in the teaching of one or more courses in linguistics will advise students and grant the Certificate.

A student wishing to earn a Linguistics Studies Certificate will choose courses from the following list of offerings:

Required Courses

LIN 3010	Introduction to General Linguistics	3
or		
LIN 3013	English Linguistics	
or		
SPN 3733	Introduction to General Linguistics (taught in Spanish)	
or		
FRE 3700	Introduction to General Linguistics (taught in French)	
LIN 4341	Modern English Grammar	3
or		
FRE 4800	Contrastive Morphology	
or		
SPN 4800	Contrastive Morphology	
SPN 4802	Contrastive Syntax	3

Four of the following courses: (12)

LIN 4621	Black English
LIN 4403	Applied Linguistics (English)
LIN 4341	Modern English Grammar
LIN 4142	Historical and Comparative Linguistics
or	
LIN 5146	
LIN 6342	Advanced Syntax
LIN 5206	Phonetics
LIN 4221	
or	General Phonology
LIN 6222	
LIN 4330	
or LIN 5331	General Morphology and Syntax
LIN 5107	History of English Language
LIN 5405	Contrastive Analysis
LIN 4801	Semantics
or	
LIN 5805	
LIN 6602	Language Contact
FOL 3732	Romance Linguistics
or	
LIN 5735	
FRE 3705	Applied Linguistics (in French)
FRE 3780	French Phonetics
FRE 3820	Dialectology (in French)
FRE 3840	History of the French Language
FRE 4791	Contrastive Phonology (French/English)

FRE 4800	Contrastive Morphology (French/English)
FRE 4562 or LIN 5565	Studies in Bilingualism (French/English)
FRE 5735	Special Topics in French Linguistics
LIN 3200 or LIN 5206	Phonetics
LIN 3400	Applied Linguistics (Modern Languages)
LIN 3610	Dialectology
LIN 4226	Contrastive Phonology
LIN 4333	Contrastive Morphology
LIN 4418	Problems in Language Learning
LIN 5600	Introduction to Sociolinguistics
LIN 4620 or LIN 5625	Studies in Bilingualism
LIN 5435	Research Methods in Linguistics
LIN 5934	Special Topics in Linguistics
POR 3930	Special Topics in Portuguese Language/ Linguistics
SPN 3705	Applied Linguistics (in Spanish)
SPN 3780	Spanish Phonetics
SPN 3820	Dialectology (in Spanish)
SPN 4840	History of the Spanish Language
SPN 4562 or LIN 5565	Studies in Bilingualism (Spanish/English)
SPN 4790	Contrastive Phonology (Spanish/English)
SPN 4800	Contrastive Morphology (Spanish/English)
SPN 4802	Contrastive Syntax
SPN 4822	Hispanic-American Sociolinguistics
SPN 4824	Dialectology of the Spanish Caribbean
SPN 4930 or SPN 6930	Special Topics in Spanish Linguistics
LIN 4701	Psychology of Language
LIN 4710 or LIN 5715	Language Acquisition
PHI 4221	Philosophy of Language
PHI 4222	Philosophy of Dialogue
MHF 4302	Mathematical Logic

Marine Science Certificate Program

W. M. Goldberg, *Director (Biological Sciences)*

Coordinating Committee

C. Bigger *(Biological Sciences)*
R. Jones *(Biological Sciences)*
J. Makemson *(Biological Sciences)*
F. Maurrasse *(Physical Sciences)*
L. Quackenbush, *(Biological Sciences)*
M. Tracey *(Biological Sciences)*

The Marine Science Program is designed to meet the needs of students whose interests are geared to the traditional natural sciences and environmental sciences. The course work is intended to prepare students for teaching in secondary schools, work in research and government laboratories, and preparation for advanced study in Marine Science. The certificate is awarded to both degree and non-degree seeking students who have successfully completed the requirements listed below.

Certificate Requirements

Lower or Upper Division Preparation: Two semesters of inorganic chemistry with laboratory.

Required Courses: (11)

OCB 2003	Introductory Marine Biology	3
OCB 2003	Introductory Marine Biology Lab	1
or		
OCB 4730	Techniques in Biological Oceanography	1
GLY 4730	Marine Geology	3
GLY 4730L	Marine Geology Lab	1
OCE 3014	Physical Oceanography	3

Electives: Two of the following

OCC 3002	Chemical Oceanography	3
OCC 3002L	Chemical Oceanography Lab	1
ZOO 3253	Marine Invertebrate Zoology	3
ZOO 3253L	Marine Invertebrate Zoology Lab	1
OCB 5635	Coral Reef Ecology	3
OCB 5635L	Coral Reef Ecology Lab	1
ZOO 5625	Biology of Crustaceans	3
ZOO 5625L	Biology of Crustaceans	1
MCB 5735	Marine Microbiology	3
MCB 5735L	Marine Microbiology Lab	1

All courses require a grade of 'C' or higher.

Translation Studies Certificate Program

This professional certificate is designed to train students in the techniques and skills needed for the translation (E-S and S-E) of routine documents and general correspondence. It also provides the general background and introductory professional courses needed for future study or work in the field. The program consists of 30 semester hours.

Through its academic track, the certificate program offers complementary studies for the practitioner who wants to strengthen his or her competence in these fields.

Prerequisites

SPN 3302	Review Grammar and Writing II	3
ENC 3200	Business Letter and Reports	3

No credits allowed. These prerequisites may be fulfilled by passing a qualifying examination.

Core Courses: (12)

SPT 3800	Introduction to Translation Skills	3
SPT 3812	Introduction to Oral Translation	3
SPT 4801	Translation Practica	3
SPT 4802	Oral Translation Practica	3

Required Courses: (9)

SPT 4803	Practica in Legal Translation	3
SPT 4809	Practica in Medical Translation	3
SPT 4807	Practica in Business Translation	3
SPT 4808	Practica in Technological Translation	3
SPT 4805	Translation in Communication Media	3

Restrictive Electives: One course from the following:

ENC 3343	Technical Writing	3
ENC 4242	Scientific Writing	3
SPN 3500	Culture I	3
SPN 3415	Communication Arts	3

Free Electives: Two Courses from the following:

ACG 3021	Accounting for Decisions	3
COP 2172	Programming in BASIC	3
ECO 30213	Economics, Man and Society, Micro	3
ECO 3011	Economics, Man and Society, Macro	3
ENC 3200	Business Letters and Reports	3
HUN 3201	Principles of Nutrition	3
INR 3403	International Law	3
INR 4033	International Communications	3
JOU 3100	News Reporting	3
MAN 3602	International Business	3
MAN 3701	Business and Society	3
MRE 3001	Medical Terminology	3
MRE 4301	Fundamentals of Medical Science	3
POS 2002	Introduction to Politics	3
RTV 4101	Writing for the Electronic Media	3
RTV 4302	Broadcasting for Reporting (Prerequisite JOU 3100)	3
SYG 3002	The Basic Ideas of Society	3
SPN 4440	Spanish for Business	3
SPN 4501	Special Topics in Civilization and Culture (Prerequisite SPN 3500)	3

In addition to these subjects, the free electives may be chosen from the offerings in the departments of Sociology/Anthropology, Communication, Computer Science, Economics, International Relations, Modern Languages, and Political Science by securing the approval of the Director of the Program.

Tropical Commercial Botany Professional Certificate Program

David Lee, *Director (Biological Sciences)*

Coordinating Committee

George Dalrymple *(Biological Sciences)*
Kelsey Downum *(Biological Sciences)*
Suzanne Koptur *(Biological Sciences)*
Jennifer Richards *(Biological Sciences)*

This Certificate Program provides background in the plant sciences, principally for those with practical experience in horticulture. The curriculum is designed to give solid information on the plants being grown: their anatomy and morphology, reproduction, taxonomy, development and physiology. This background should prepare students for work in the more technical aspects of horticulture in South Florida. Those fulfilling its requirements, along with a B.S. degree in Biological Sciences or Environmental Studies, would have excellent preparation for post-graduate work in Botany or Horticulture.

Certificate Requirements
Lower or Upper Division Preparation
Two semesters of college-level chemistry
Mathematics through College Algebra (such as MAC 2132)
Practical Horticultural Experience
Required Courses: (16)

BOT 3010C	Plant Biology	4
BOT 3353C	Morphology of Tropical Plants	4
BOT 4504	Plant Physiology	3
BOT 4504L	Plant Physiology Laboratory	1
BOT 3723C	Taxonomy of Tropical Plants	4

Electives: Two courses from the following (6-8)

BOT 3810	Economic Botany	3
BOT 4314C	Plant Development	4
PCB 3043	Ecology	3
PCB 3043L	Ecology Lab	1
EVR 3010	Energy Flow in Natural and Man-Made Systems	3
ENY 3004	General Entomology	3
ENY 3004L	General Entomology Lab	1
ACG 3021	Accounting for Decisions	3
ARC 3127C	Graphic Communication	3
LAA 3370C	Landscape Design I	3
		22-24

All courses require a grade of 'C' or higher.

Western Social and Political Thought Certificate Program

Brian Nelson, *Director (Political Science)*
Coordinating Committee
Charles Elkins *(English)*
Steven Fjellman *(Anthropology/Sociology)*
Bruce Hauptli *(Philosophy/Religion)*
Antonio Jorge *(International Relations)*
Eric Leed *(History)*
Barry Levine *(Sociology)*

The Certificate Program provides interested students with a broad background in the history of western social and political thought. As such, the Certificate student will be expected to take courses from a variety of disciplines and at least three tutorials. Each tutorial will concentrate on one prescribed book which will be the same for all students. At the beginning and end of each semester the students will meet as a group with the instructors in the Program to discuss the different perspectives which they have developed on the common subject matter.

Course Requirements: A total of five courses in prescribed Certificate courses and three tutorials with a grade of 'C' or higher.

Four courses in three historical eras (Ancient-Medieval, Modern, and Contemporary) from at least three different departments (Economics, English, History, Philosophy/Religion, Political Science, Sociology/Anthropology).

IDS 4920, Liberal Studies Colloquium on 'Visions of Order and Revolt'. (Under excepDtional circumstances another course may be substituted with the advisors approval).

Three independent study tutorials taken in three semester blocs. Admission to the Program: Admission to the program will be by invitation from a member of the certificate faculty, or by request from the student. In either case, final approval for admission rests with the Coordinating Committee of the Certificate Program. GPA, intellectual interests, and academic potential will be the criteria considered for admission to the Program.

Advising: The student's advisor will be the designated Certificate representative in his or her major. It is the function of the Certificate advisor to aid students in the selection of relevant courses, to insure that all Certificate requirements have been completed before graduation, and to assign the tutorial grades. Students who are majoring in a discipline other than those listed will be advised by the Director of the Certificate Program or, by mutual agreement, by another advisor of the students choice. Students are responsible for contacting their advisor on the progress of their coursework and other matters related to completion of Certificate requirements.

Course Listing: The following list may be modified from time to time. The student should consult with his or her advisor about current course offerings.

Ancient-Medieval

HIS 3001	Introduction to History	3
HUM 3211	Ancient Classical Culture and Civilization	3
LIT 4403	Literature Among the Arts and Science[1]	3
PHH 3100	Ancient Philosophy	3
PHH 3200	Medieval Philosophy	3
PHM 3200	Social and Political Philosophy[2]	3
PHM 4400	Philosophy of Law[1]	3
POT 3013	Ancient and Medieval Political Theory	3
POT 4930	Topics in Political Theory[2]	3
POT 5934	Topics in Political Theory[2]	3

Modern

ENL 4320	Shakespeare's Histories	3
ENL 4321	Shakespeare's Comedies	3
ENL 4322	Shakespeare's Tragedies	3
EUH 3142	Renaissance and Reformation	3
EUH 4453	French Revolution and Enlightenment	3
EUH 4286	Topics in European Intellectual History	3
LIT 3200	Themes in Literature	3
LIT 4403	Literature Among the Arts and Sciences	3
PHM 3200	Social and Political Philosophy[1]	3
PHM 4400	Philosophy of Law[1]	3
POT 3054	Modern Political Theory I	3
POT 3204	American Political Thought [1]	3
POT 4930	Topics in Political Theory[2]	3
POT 5934	Topics in Political Theory[2]	3

Contemporary

AMH 3331	American Intellectual History[1]	3
ANT 3086	Anthropological Theories	3
ECO 3303	The Development of Economic Thought	3
ECO 4321	Radical Political Economy	3
EUH 4286	Topics in European Intellectual History	3
LIT 4403	Literature Among the Arts and Sciences[2]	3
PHM 3200	Social and Political Philosophy[1]	3
PHM 4203	Contemporary Social and Political Issues	3
PHM 4400	Philosophy of Law[1]	3
PHP 4510	Marxism	3
POT 3064	Contemporary Political Theory	3
POT 3302	Political Ideologies	3
POT 3204	American Political Thought [1]	3
POT 4930	Topics in Political Theory[2]	3
POT 5934	Topics in Political Theory[2]	3
SYG 3002	The Basic Ideas of Sociology	3
SYA 4010	Sociological Theories	3
SYO 4300	Political Sociology	3
SYA 4011	Advanced Social Theory	3

[1] Thematic Courses that cover more than one historical period.

[2] Depending on subject taught, these courses may cover one or more than one historical period. Students should consult their advisor before enrolling.

Women's Studies Certificate Program

Marilyn Hoder-Salmon, *Director, Women's Studies Center*
Coordinating Committee
Joyce Shaw Peterson, *Coordinator, (History)*
Rusty Belote *(Student Affairs)*
Lynn Berk *(English)*
Judy Blucker *(Academic Affairs)*
Irma de Alonso *(Economics)*
Minie Dunbar *(Library)*
Mary Jane Elkins *(English)*
Steve Fjellman *(Sociology/Anthropology)*
Mary Levitt *(Psychology)*
Lynda Raheem *(Business Administration)*
Ana Roca *(Modern Languages)*
Regina Shearn *(Public Affairs)*
Betsy Smith *(Social Work)*
Margaret Wilson *(Labor Institute)*

The Women's Studies Certificate Program provides an opportunity for students to integrate scholarship about women from a variety of disciplines into a coherent program of study. The Certificate program includes a core of required courses central to an understanding of women in a social and historical context. The courses provide a basic grounding in Women's Studies that should be useful in many other courses. The core courses are supplemented by a variety of electives to be chosen according to the particular student's specific interests. The Certificate program seeks to provide a balance to the traditional academic curriculum and also offers pragmatic vocational learning.

A student may acquire the Certificate in Women's Studies by fulfilling the following requirements:

Three required Core Courses of the following:

AMH 3560	History of Women in the United States	3
SOP 3742	Psychology of Women	3
PUP 4323	Politics of Contemporary Women's Issues	3
LIT 3411	Women and Literature	3
WST 3010	Introduction to Women's Studies	3
or		
IDS 3930	Foundations of Liberal Studies	

Three electives from the following partial list:

ANT 3302	Male and Female: Sex Roles and Sexuality	3
CCJ 4663	Women, Crime and the Criminal Justice System	3
ENG 4132	Women and Film	3
ETI 4691	Women in Industry	3
LIT 3411	Women and Literature	3
MAN 4781	Women in Management of Business Organizations	3
PAD 5435	Administrator and the Role of Women	3
PHM 4123	Philosophy and Feminism	3
SOW 5621	Crises in the Lives of Women	3
WOH 3280	History of Women	3

In any particular semester, appropriate special topics courses may be taken as electives with approval.

Students should contact the Women's Studies Center Director on the University Park, OE Trailer 5, 554-2408, or the Certificate Committee Coordinator on the North Miami Campus at 940-5861 for further information.

College of Arts and Sciences

Dean	**James A. Mau**
Associate Dean, Budget and Development	**Arthur W. Herriott**
Associate Dean, Graduate Programs,	**Luis Escovar**
Assistant Dean, Curriculum and Advisement	**Fred Bouma**
Director, School of Computer Science	**Robert Fisher**

Chairpersons and Program Directors:

Biological Sciences	**John Makemson**
Communication	**J. Arthur Heise**
Chemistry	**Leonard Keller**
Economics	**Jorge Salazar-Carrillo**
English	**Mary Jane Elkins**
Environmental Studies	**John Parker**
Geology	**Florentin Maurrasse**
History	**Howard Rock**
Humanities	**Ramon Mendoza**
International Relations	**Charles MacDonald**
International Studies	**Lisandro Perez**
Liberal Studies	**Janat Parker**
Mathematics	**Dev Roy**
Modern Languages	**Reinaldo Sanchez**
Music	**Joseph Rohm**
Philosophy and Religious Studies	**Robert Hann**
Physics	**Stephan Mintz**
Political Science	**John Stack, Jr.**
Psychology	**Paul Foos**
Sociology and Anthropology	**Lisandro Perez**
Statistics	**Carlos Brain**
Theatre and Dance	**Therald Todd**
Visual Arts	**William Maguire**

Faculty

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Shershin, Anthony, Ph.D. *(University of Florida), Associate Professor, Mathematics*

Shore, Minna, Ph.D. *(Leningrad Technical Institute), Instructor, Mathematics*

Skow, Marilyn, M.Ph. *(Columbia University), Assistant Professor, Theatre and Dance*

Slifker, James, Ph.D. *(University of Notre Dame), Associate Professor, Mathematics*

Soruco, Gonzalo, Ph.D. *(Indiana University), Assistant Professor, Communication*

Sprechman, Ellen, M.A. *(Barry University), Instructor, English*

Stack, John, Jr., Ph.D. *(University of Denver), Professor and Chairperson, Political Science*

Standiford, Lester, Ph.D. *(University of Utah), Associate Professor, English*

Stayman, Andrea, M.A. *(University of Miami), Instructor, Modern Languages*

Stein, Abraham, Ph.D. *(University of Southern California), Professor, Biological Sciences*

Stepick, Alex, Ph.D. *(University of California at Irvine), Associate Professor, Sociology/ Anthropology*

Stiehm, Judith, Ph.D. *(Columbia University), Professor, Political Science and University Provost*

Sugg, Richard, Ph.D. *(University of Florida), Professor, English*

Szuchman, Mark, Ph.D. *(University of Texas), Professor, History*

Tal, Doron, Ph.D. *(Ben Gurion University, Israel), Assistant Professor, School of Computer Science*

Thorhaug, Anitra, Ph.D. *(University of Miami), Research Scientist, Biological Sciences*

Ticknor, Donna, Ph.D. *(University of Florida), Lecturer, Chemistry*

Todd, Therald, Ph.D. *(University of Oregon), Associate Professor and Chairperson, Theatre and Dance*

Torres, Manuel, Ph.D. *(University of New Mexico), Assistant Professor, Visual Arts*

Tracey, Martin, Ph.D. *(Brown University), Professor, Biological Sciences*

Vagramian-Nishanian, Violet, Ph.D. *(University of Miami), Professor, Music*

Vickers, William, Ph.D.*(University of Florida), Associate Professor, Sociology/ Anthropology*

Volcansek, Mary, Ph.D. *(Texas Tech University), Professor, Political Science*

Waltz, Susan, Ph.D. *(University of Denver), Assistant Professor, International Relations*

Warren, Christopher, D.A. *(Lehigh University), Associate Professor, Political Science*

Watson, Donald, Ph.D. *(University of Virginia), Associate Professor,English*

Watson-Espener, Maida, Ph.D. *(University of Florida), Associate Professor, Modern Languages*

Watts, Barbara, Ph.D. *(University of Virginia), Assistant Professor, Visual Arts*

Waugh, Butler, Ph.D. *(Indiana University), Professor, English*

Weeks, Ophelia, Ph.D. *(Howard University), Assistant Professor, Biological Sciences*

Weiss, Mark, Ph.D. *(Princeton), Assistant Professor, School of Computer Science*

Weitz, Barbara, M.S. *(Florida International University), Instructor, English*

Welch, Marcelle, Ph.D. *(University of Michigan), Assistant Professor, Modern Languages*

Wilkins, Mira, Ph.D. *(Cambridge University), Professor, Economics*

Williams, Willie, Ph.D. *(Michigan State University), Associate Professor, Mathematics*

Willumsen, Maria, Ph.D. *(Cornell University), Assistant Professor, Economics*

Winters, Sandra, M.F.A. *(Cornell University), Assistant Professor, Visual Arts*

Wolfe, Gregory Baker, Ph.D. *(The Fletcher School of Law and Diplomacy), Professor, International Relations*

Wyroba, Francis, M.A. *(Columbia University), Professor, Visual Arts*

Yudin, Florence, Ph.D. *(University of Illinois), Professor, Modern Languages*

Zahedi-Jasbi, Hassan, Ph.D. *(University of California at Riverside), Assistant Professor, Statistics*

Zweibel, John, Ph.D. *(Colombia University), Assistant Professor, Mathematics*

College of Business Administration

College of Business Administration

The College of Business Administration offers academic programs leading to the undergraduate degrees of Bachelor of Business Administration and Bachelor of Accounting and to the graduate degrees of Master of Accounting (M.Acc.), Master of Business Administration (M.B.A.), Master of International Business (M.I.B.), Master of Science in Finance (M.S.F.), Master of Science in Information Systems, (M.S. in MIS), Master of Science in Taxation (M.S.T.), and Doctor of Philosophy in Business Administration (Ph.D.).

The College is organized into the School of Accounting and Departments of Decision Sciences and Information Systems, Finance, Management and International Business, and Marketing and Environment.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Undergraduate Degree Information

All students must have a program of study completed by the end of their first semester. Entering Accounting majors should call the School of Accounting, 554-2581, to make a program counselling appointment. All other majors should call 554-2781 at the University Park or 940-5870 at the North Miami Campus. At the time of the appointment the appropriate counselor will assist the student in completing a formal program of study. (A program of study is one that has been completed and signed by the student and the counselor). Questions of interpretation regarding course or degree requirements will be resolved at the time the program of study is developed. If, for some reason, a program of study is not completed at least two semesters before a student is expected to graduate, the student may not be permitted to register for future classes.

Undergraduate students majoring in non-business areas will not be permitted to apply more than 30 semester hours of business courses toward their degree. Additionally, students who register for any graduate business course must be formally admitted to a graduate certificate or graduate degree program at the University. Applicants to the College must submit an Application for Admission to the University and must follow the regular University admission procedures. Applicants must be eligible for admission to the University before admission to the College.

Academic Standards

1. CBA undergraduates must earn a grade of 'C' or higher in all courses within their major(s).
2. CBA undergraduates will be required to pass a Readiness Examination prior to registration in ACG 3301 and ACG 4101.
3. Undergraduate and graduate students may not enroll more than twice in any CBA course without the written permission of the Dean. This permission will be granted only in those exceptional cases where failure to complete a course successfully is demonstrated to be unrelated to classroom performance.
4. All CBA students must satisfy the requirements of their respective programs of study and, additionally, must satisfy all University requirements for graduation.
5. See University General Information regarding Academic Warning, Probation, and Dismissal.

Undergraduate Study

An undergraduate student is required to have completed the Associate of Arts degree or its equivalent, and is encouraged to have some knowledge of accounting, mathematics, computer programming, speech and economics (accounting majors should also have coursework in the areas of calculus and logic). The broad liberal arts exposure inherent in the Associate of Arts degree usually enables a student to complete the Bachelor of Business Administration requirements in the equivalent of two years, and to take most of the professional work within the College.

This professional work includes:

1. Pre-core courses where necessary;
2. Certain required courses designed to provide the student with a common body of knowledge, including:
   a. A background of concepts and processes in the marketing, production, and financing of goods and services in the business enterprise and related organizations, both domestically and internationally;
   b. A background of the economic and legal environment as it pertains to profit and non-profit organizations along with ethical, social, and political influences;
   c. A basic understanding of concepts and applications in accounting, quantitative methods, computers, and management information systems;
   d. A study of communication theory, behavior, and interpersonal communications;
   e. A study of administrative processes and decision-making under conditions of uncertainty, including policy analysis at the overall management level;
3. Courses required for the student's major;
4. Approved elective courses.

The student entering an undergraduate program of the College is required to meet the following standards:

1. 60 semester hours completed.
2. Grade point average of 2.50 or higher.
3. Satisfaction of general University requirements for admission, including, in this case, the general education requirements. The general education requirements are: English composition, humanities, social science, natural science, and mathematics.

If a student has a GPA higher than 2.50 and is deficient in no more than six semester hours of general education requirements, the student may still be accepted into the undergraduate program. However, all lower division deficiencies must be completed during the student's first two semesters at the University.

Time Limit

All undergraduate business coursework (including prerequisites) must be earned within seven years immediately preceding the awarding of the degree.

Upper Division Transfer

Previous credit may be considered acceptable for transfer toward upper level academic study in the College if the credit was earned within the last six years, was designated as junior-senior level credit at an accredited four year upper level institution, a grade of 'C' or higher was earned, or can be validated by some acceptable measure to verify its equivalence. Students wishing to transfer to the College must be in good standing at their previous school or college.

Undergraduate Majors

Major programs leading to the Bachelor's degree are offered in Accounting, Finance, Management, Personnel Management, Management Information Systems, and Marketing. A second major in International Business may be obtained in addition to any of these business functional majors. Non-business majors must meet all College of Business Administration requirements (including the core courses) to be eligible for a second major in Business.

Change of Major

Any student changing to a new major within the College of Business Administration from another college or school in the University must meet degree requirements in effect at the time of the change of major.

Residency Requirements

A student must complete the last 30 semester hours of course work at the University to qualify for the BBA degree.

Readmission

An admitted degree-seeking student who has not enrolled in any course at the University for three consecutive semesters or more is eligible for readmission under the University and program regulations in effect at the time of readmission.

Degree Requirements

See University General Information.

Undergraduate Business Program Requirements

Lower Division Preparation: The following courses, in addition to the other requirements for the Associate of Arts degree, should be a part of the 60 semester hours of lower division coursework completed in order to enter any CBA upper division major: six semester hours of accounting; six semester hours of economics; three semester hours of college algebra;

three semester hours of business statistics; three semester hours of computer programming, and three semester hours of public speaking. If completed at the University, this coursework will normally be taken in addition to the 60 semester hours of required upper division work.

FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into College of Business Administration programs.

Computer Programming Proficiency Requirement: The rapidly increasing need of the professional administrator for exposure to computer technology and terminology requires that fundamental expertise in this area be achieved. Therefore, prior to enrollment in CGS 3300 (or ACG 4401), each student must demonstrate computer programming proficiency. This requirement may be completed in any of the following ways:

1. Successful completion of a computer programming course at the lower division.
2. Successful completion of COP 2172 Programming in BASIC.
3. Work experience with verification by employer. Further details may be obtained from the undergraduate counseling office.

Upper Division Program

Pre—Core Courses Required for Business Administration Students: (18 semester hours)

ACG 3021	Accounting for Decisions	3
COP 2172	Programming in BASIC	3
ECO 3021	Economics, Man and Society-Micro	3
ECO 3011	Economics, Man and Society-Macro	3
STA 3132	Quantitative Methods for Administration	3
SPC 2600	Public Speaking	3

The above courses will be waived if the student received a grade of 'C' or higher in the appropriate lower division courses. A student should see a counselor to determine whether these courses should or should not be added to the program of study. Upper division credit will not be given for STA 3132, ECO 3021, ECO 3011, ACG 3021, COP 2172, MAC 3233, and PHI 3011, or comparable courses taken at the lower level.

Core Courses Required for Business Administration Students: (33-36 semester hours)

FIN 3403	Financial Management	3
MAN 3025	Organization and Management	3
MAR 3023	Marketing Management	3
CGS 3300	Introduction to Information Systems	3
ACC 3301	Accounting for Planning and Control	3
ECO 3431	Applied Macroeconomics	3
QMB 3150	Applications of Quantitative Methods in Business	3
MAN 3503	Managerial Decision Making	3
MAN 4504	Operations Management	3
MAN 3701	Business and Society	3
MAN 3602	International Business	3
MAN 4722	Policy Analysis	3

[1] This course should not be taken by students majoring in accounting. (See model schedule for accounting majors).

Major: Required Credits	12-24
Approved Elective Credits	3-12
Total (does not include deficiencies)	60-66

Note: All electives must be approved in advance by the Counseling Office.

Business Core Courses

As noted under CBA General Information (Academic Standards), undergraduates must pass a Readiness Examination in Accounting as a prerequisite for registration in ACG 3301. The core courses and prerequisites in the College are as follows:

FIN 3403 Financial Management — ACG 3021 or its equivalent.

MAN 3503 Managerial Decision Making -College algebra, statistics, and QMB 3150 or its equivalent.

MAR 3023 Marketing Management

QMB 3150 Application of Quantitative Methods in Business — STA 3132, or its equivalent, and college algebra.

CGS 3300 Introduction to Information Systems — computer programming proficiency requirement or COP 2172.

ACG 3301 Accounting for Planning and Control — at least six semester hours of introductory financial and managerial accounting with a grade of 'C' or higher; or ACG 3021 with a grade of 'C' or higher; and successful completion of a readiness examination.

MAN 4504 Operations Management — MAN 3503 and QMB 3150.

MAN 3025 Organization and Management

MAN 3701 Business and Society — ECO 3021 and ECO 3011 or equivalent.

MAN 3602 International Business — ECO 3431.

ECO 3431 Applied Macroeconomics — ECO 3021 and ECO 3011 or equivalent.

MAN 4722 Business Policy — Completion of all core course requirements. Course should be taken in the student's last academic semester before graduation.

Master's Degree Information

All students taking graduate business courses must be admitted to a business graduate program or have prior approval from the appropriate graduate counselor.

The Graduate Programs of the College offer the student advanced professional education for managerial careers in business and government. At the Master's level, the degrees of Master of Accounting, Master of Business Administration, Master of International Business, Master of Science in Finance and Master of Science in Management Information Systems, and Master of Science in Taxation are offered.

The Master of Business Administration degree is designed to give students a general management education and to assist them in preparing for their chosen careers. More specialized preparation is available in the other programs.

Admission Requirements

To be eligible for admission to the graduate programs in the College, the applicant must:

1. Satisfactorily meet the general University requirements for admission to graduate programs.
2. Hold a Bachelor's degree from a regionally accredited college or university.
3. Show high promise of success in graduate studies as determined by the faculty. Admission to all the College graduate programs will be based upon a combination of the Graduate Management Admission Test (GMAT) and the upper-division grade point average.
4. Present, if a foreign student, a minimum score of 500 on the TOEFL, or an equivalent score on a comparable examination. See General Admission requirements for Foreign Students (undergraduate and graduates) in the Admission section of the catalog.
5. Be in good standing with previous colleges or universities attended. Application Procedures

A student planning to enroll in graduate studies in the College must complete the following steps and meet the stipulated requirements:

1. Submit a Graduate Application for admission to the Admissions Office. Application Forms will be mailed upon request. The admission process may require as long as two months after receipt of the application, depending upon the time involved in the receipt of transcripts and test scores.
2. Have a copy of the official transcripts of all previously earned college or university credits sent from the applicant's former institution(s) to the Admissions Office. (Copies submitted directly by applicants are not accepted for application purposes).
3. Submit scores on the Graduate Manageoment Admissions Test (GMAT), administered nationally by the Educational Testing Service (Box 966, Princeton, New Jersey 08540). Registration forms will be mailed upon request.

Degree Requirements

To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for a master's degree.
2. Meet the requirements of an approved program of study. This program of study is developed by the student and his or her graduate counselor and must be approved by the appropriate Department Chairperson.
3. (a) Complete a minimum of 36 semester hours (depending on program) of graduate level coursework, for the Master of Science in Finance and Master of Science in Management Information Systems (b) Complete a minimum 42 semester hours of graduate level coursework, for the Master of Business Administration or 39 semester hours for the Master of International Business. (c) Complete a

minimum of 30 semester hours of graduate level coursework for the Master of Accounting or the Master of Science in Taxation programs.

4. Earn a minimum average of 'B' (3.0) in all approved courses in the student's program of study.

No courses in which a grade below 'C' is earned may be counted toward the M.Acc., MBA, MIB, MSF, M.S. in MIS, or MST degrees. However, all approved work taken as a graduate student will be counted in computing the grade point average, including courses graded 'D' or 'F', and any approved undergraduate courses taken while a graduate student.

Transfer Credit

Students may receive permission to transfer up to a maximum of six semester hours of graduate credit toward their degree program, provided that: (1) the courses were taken at the graduate level at an accredited college or university; (2) the courses were not introductory or 'survey' in nature; (3) grades of 'B' or higher were earned; (4) the courses are judged by the faculty advisor, the Department Chairperson, and the Dean to be relevant to the student's graduate program; (5) the credits were not used toward another degree; and (6) the credits were completed within six years immediately preceding the awarding of the degree. Credits are not transferable until the student has earned 15 semester hours in the College graduate program. Students wishing to transfer to the College must be in good standing at their previous school or college.

Time Limit

All work applicable to the Master's degree, including transfer credit, must be completed within six years immediately preceding the awarding of the degree.

Change of Major

The graduate student who wishes to change his or her program major must submit a Graduate Change of Major request to the Admissions Office and meet the admission and program requirements in effect at the time of the change of major.

Master of Business Administration (MBA)

The objective of the Master of Business Administration (MBA) program is to provide the student with a general background in the concepts and processes of administration. The MBA program is aimed at developing a management generalist who has a breadth of knowledge and understanding, and who is oriented toward pragmatic problem solving.

The courses leading to the MBA degree are designed to provide a breadth of experience in the tools and concepts of business administration. The total MBA program consists of 42 semester hours of the MBA courses. The courses are categorized by area, with a regular MBA course and Substitute (s) for each category. If a student tests-out or is counselled out of the 'regular' course(s), he or she must select one of the Substitutes in the same category. To be eligible for testing or counselling out of a 'regular' course, the student should have previously completed at least three courses in that functional area at the upper division level with above-satisfactory grades. The general business electives may be taken from any of the 6000 level offerings in Business Administration. Students whose background in accounting, statistics, or economics is evaluated to be inadequate will be required to complete MAN 3025 (Organization and Management),ACG 6005 (Financial Accounting Analysis), MAR 6716 (Marketing Management), QMB 6603 (Quantitative Methods in Management), ECP 6705 (Managerial Economics) or COP 2172 (Basic Programming for Business), or both, as prerequisites to the program.

MBA Program

(On substitute courses, see the guidelines under program description.)

Area: Information Systems
Course: MAN 6830 Organization Information Systems[1]
Substitute: MAN 6833 Information Systems Planning

Area: Quantitative Methods[2]
Course: MAN 6721 Managerial Decision Making
Substitute: QMB 6805 Deterministic Models for Management Analysis

Area: Accounting[3]
Course: ACG 6308 Accounting for Decision Making
Substitute: ACG 6346 Seminar in Managerial Accounting I
ACG 6135 Seminar in Financial Accounting Theory
ACG 6696 Studies in Auditing
TAX 6065 Income Tax Planning and Research

Area: Finance (Corporate)
Course: FIN 6428 Financial Management
Substitute: FIN 6246 Financial Markets
FIN 6516 Security Analysis
FIN 6806 Theory of Finance and Institutions

Area: Operations
Course: MAN 6501 Operations Management
Substitute: MAN 6585 Productivity Management

Area: Marketing Electives
Course: Any 6000-level MAR prefix course excluding MAR 6716

Area: Management
Course: MAN 6205 Organizational Behavior
MAN 6207 Organization and Management Theory (no substitute)
Substitute: MAN 6112 Group Processes in Organizations
MAN 6405 Labor Relations
MAN 6601 International Management

Area: Economics
Course: ECP 6715 Macro-Economic Forecasting for Management
Substitute: FIN 6435 Forecasting Business Conditions

Area: Environment
Course: GEB 6405 Business and Legal Environment
Substitute: BUL 6124 Survey of Business Law
MAN 6635 International Business Policy

Area: Policy
Course: MAN 6726 Policy Analysis (no Substitutes)

International Business Elective: One 6000-level international course taught in the College of Business Administration. General Business Electives: Two 6000-level business course or other approved graduate level courses.

[1] Prior to enrollment in QMB 6603 or MAN 6830, each student must demonstrate computer programming proficiency. This requirement may be completed in any of the following ways:

1. Successful completion of a computer programming course at the undergraduate level.
2. Successful completion of COP 3172, Basic Programming for Business.
3. Self-study or work experience.

[2] For the student without STA 3132 and QMB 3150 (college algebra and statistics) background, QMB 6603 must be taken prior to MAN 6721.

[3] For the student without ACG 3021 and ACG 3301 (financial and managerial accounting) background, ACG 6005 must be taken prior to ACG 6308 and FIN 6428.

Note: The first three categories information systems, quantitative methods and accounting must be satisfied prior to taking any other MBA courses. The policy course must be scheduled for the last semester of MBA study.

Doctoral Degree Information

The doctoral program in Business Administration is a selective one leading to the Ph.D. degree.

The program emphasizes the development of research and teaching skills to ensure that graduates acquire the credentials necessary for placement in leading academic institutions.

Each doctoral student's program of study is tailored to mesh faculty and student interests and to maintain a high level of interaction among the students and the faculty.

The program requires three to four years of full-time study, including a year to a year-and-a-half of dissertation research. Core business courses are required of all doctoral candidates during the first year of study; the second year consists of courses in a major area of concentration. The firs year is geared toward breadth of knowledge, whereas the second year develops students' depth of knowledge in a particular area of concentration.

Major areas of concentration include:
Accounting
Decision Sciences and Information Systems

Finance
International Business
Management
Marketing

Admission Requirements

Applicants are considered from students with a wide variety of educational backgrounds, such as business, liberal arts and the sciences. Those who are accepted into the program show strong evidence of ability and scholarly interests.

Potential students should provide the following:

1. Completed application form and processing fee.
2. Three letters of recommendation from academic sources.
3. Official transcripts from all undergraduate and graduate coursework.
4. A report of the Graduate Management Admissions Test (GMAT) score from the Educational Testing Service (the average GMAT score for entering students is 600 and higher).
5. International students whose native language is other than English must also submit an official report of their score on the Test of English as a Foreign Language (TOEFL) from the Educational Testing Service.

Admission to the program is considered as soon as all the required documents are received. The Doctoral Program in Business Administration at the University encourages all qualified persons to apply and admits applicants without regard to sex, age, race, color, creed, handicap, marital status, national or ethnic origin.

Degree Requirements

General degree requirements for all doctoral candidates are:

1. Demonstration of practical knowledge or research methods and procedures in the areas of statistics, econometrics, and behavioral sciences; a research project is conducted at the end of the first year of study to ensure that all candidates have acquired the relevant skills.
2. Successful completion of a comprehensive examination at the end of the second year in a major area of concentration to ensure that students are prepared to begin dissertation research.
3. Successful completion and oral defense of doctoral dissertation.

Financial Aid

Applicants to the doctoral program may request financial aid by completing the form included with the application. Research and teaching stipends are available. The stipend may include both cash award and waiver of tuition, depending upon the applicant's qualifications.

School of Accounting

Lewis F. Davidson, *Professor and Director*
Lucia S. Chang, *Professor and Associate Director*
Rolf Auster, *Professor*
William L. Campfield, *Professor Emeritus*
Jack L. Carter, *Assistant Professor*
Manuel Dieguez, *Instructor*
Mortimer Dittenhoffer, *Visiting Professor*
Donald W. Fair, *Instructor and Associate Dean*
Irving L. Fantl, *Professor*
Georgina Garcia, *Lecturer*
Rosalie C. Hallbauer, *Associate Professor*
Harvey S. Hendrickson, *Professor*
John T. Keck, *Assistant Professor*
David Lavin, *Associate Professor*
Myron S. Lubell, *Associate Professor*
Kenneth S. Most, *Professor*
Charles A. Nickerson, *Professor and Dean*
Leandro S. Nunez, *Lecturer*
Robert B. Oliva, *Associate Professor*
Felix Pomeranz, *Distinguished Lecturer, and Director, Center for Accounting, Auditing, and Tax Studies*
Edward H. Robbins, *Assistant Professor*
Craig E. Reese, *Professor*
Leonardo Rodriguez, *Professor*
Paul J. Schlacter, *Assistant Professor*
John T. Sennetti, *Professor*
Richard H. Wiskeman, Jr., *Lecturer*
John Wrieden, *Assistant Professor*
Doria Yeaman, *Associate Professor*

Graduates of the Bachelor's Degree program in accounting are being prepared for positions in public, private, or governmental accounting. For Public Accounting, the requirement for taking the CPA examination in Florida includes an additional 30 semester hours beyond the baccalaureate degree. See Florida CPA requirements detailed below. In addition, the accounting program provides students seeking advanced business or law degrees with an appropriate foundation for those studies.

The accounting program consists of three parts: the general business core (33 semester hours); the concentration in accounting (24 semester hours); and electives (nine semester hours, including six semester hours of business law). All courses in 'concentration in accounting' must be taken at the University i.e., courses in accounting are not transferable unless approved in advance by the School of Accounting.

Accounting majors must complete MAC 3233 (Calculus) and PHI 3100 (Logic) as prerequisite courses, or present acceptable coursework in the areas of calculus and logic at the lower division level.

Model Schedule — Accounting Major

The following is a model schedule (with several options) that must be followed by the typical full-time student who (1) has completed all of the freshman-sophomore requirements, and (2) wishes to complete the undergraduate accounting program. Deviations from this schedule must be approved by the Director of the School of Accounting. (The student possessing a non-business baccalaureate degree should consult the School of Accounting for alternative programs that meet the Florida State Board of Accountancy requirements).

Semester 1	Semester 2
ACG 3301	MAR 3023
FIN 3403	ACG 4101
QMB 3150	MAN 3503
ECO 3431	BUL 4111
MAN 3025	

Semester 3	Semester 4
ACG 4111	TAX 4001
ACG 4341	ACG 4651
BUL 4112	MAN 3602
MAN 3701	MAN 4504

Semester 5	Semester 6
TAX 4011	MAN 4722
ACG 4201	ACG 4401

Elective

Note: Pre-core deficiencies must be completed in Semester 1 of the third year.

Policy for Continuation as an Accounting Major

1. Students must earn a minimum grade of 'C' in all 4000 level accounting and tax courses
2. Students not achieving a grade of 'C' or better in two enrollments in any course will be dropped from the Accounting program. In extenuating circumstances, continuation in the program may be possible after a written appeal to the Continuation and Retention Committee. Appeals should be directed to the Director of the School of Accounting. A student may have no more than three re-enrollments.
3. Students who wish to take more than two accounting and tax courses in one semester must submit a written appeal to the Continuation and Retention Committee.
4. Prerequisites for all accounting and tax courses are strictly enforced.
5. Students taking accounting and tax courses are expected to seek counsel from Accounting advisors prior to registration.
6. Students working more than 20 hours per week are strongly urged to discuss with an Accounting advisor the composition of their schedule and number of courses they should take.

Master's Degree Programs in Accounting

The School of Accounting offers two graduate programs, Master of Accounting and Master of Science in Taxation. Students seeking admission to either program should have an undergraduate degree in accounting, or the equivalent, from a regionally accredited college or university. Equivalency in the common body of knowledge in business and accounting will be determined by the Dean and the Director of the School of Accounting. The Director must also approve the program of study before a student with deficiencies may take courses in either program.

Graduate Student Advising and Preregistration

All students taking graduate accounting and tax courses must be fully admitted to a graduate accounting program or have written permission from the Director of the School of Accounting. Registration for all graduate accounting and tax courses must be made through the School of Accounting Graduate Advisor. All graduate students are preregistered during a two-week period commencing three weeks prior to official university registration. Master of Accounting

The M.Acc. program is designed to prepare students for entry and accelerated advancement in the accounting profession and to provide the additional formal education needed by persons already in accounting and other fields seeking either a career change or advancement, or both.

Due to varied career opportunities, the M.Acc. program allows for specialization in Managerial or Financial Accounting. The Managerial Accounting track is designed for the student who aspires to be an officer in a business corporation, a governmental unit, or a not-for-profit organization. The Financial Accounting track is designed for the student who aspires to be a Certified Public Accountant and leader in the public accounting profession. Other specializations are possible with the approval of the Graduate Counselor for accounting and tax and the Director of the School of Accounting.

A student who earns an M.Acc. will qualify for the Certified Public Accountant Examination or, for those who took the CPA examination prior to August 2, 1983, to receive a certificate as a Certified Public Accountant. The relevant Florida Statute follows the program of study.

Master of Accounting — Government Accounting and Auditing

This graduate program track is designed to prepare students for a career in government entities at federal, state or municipal levels and educate public accountants who must audit the 80,000 government units. The curriculum includes not only the technical aspects of government accounting and auditing, but also the essential background and environmental issues that are needed to make the professional more efficient and effective.

Required Courses (4 courses: 12 semester hours)

ACG 6505	Governmental General and Cost Accounting Functions	3
ACG 6515	The Environment of Governmental Accounting	3
ACG 6517	Audit of Governmental Entities	3
ACG 6546	Advanced Governmental Planning and Budgetary Accounting with Cases	3

Additional Courses (4 courses: 12 semester hours)

ACG 6515	Advanced Governmental Accounting	3
ACG 6596	Accounting for Specialized Governmental and Other Non-Profit Entities	3
ACG 6545	Analysis of Governmental Financial Reports	3
ACG 6518	Historical and Comparative Governmental Accounting \ Seminar	3
ACG 6519	Contemporary Issues in Governmental Accounting \ Seminar	3
ACG 6625	EDP Auditing \ Concepts and Procedures	3

Electives (2 courses: 6 semester hours) From among all 6000 level course offerings. At least one course must be in accounting, approved by the graduate advisor.

M.Acc. Program of Study

Required Courses: (18 semester hours)

ACG 6135	Seminar in Accounting Theory I	3
ACG 6346	Seminar in Managerial Accounting I	3
TAX 6065	Income Tax Research	3
ACG 6696	Studies in Auditing	3
ACG 6885	Accounting Research and Reporting	3
ACG 6506	Governmental and Institutional Accounting	3

Additional Courses: three courses (nine semester hours) relating to concentration.

Elective: one course (three semester hours) approved by the Graduate Advisor.

ACG 6255	International Accounting[1,2]	3
ACG 6405	Seminar in Accounting Information Systems I[1,2]	3
ACG 6415	Seminar in Accounting Information Systems II[1]	3
ACG 6835	Behavioral Accounting [1,2]	3
ACG 6845	Accounting and Quantitative Methods [1,2]	3
ACG 6356	Seminar in Managerial Accounting II[2]	3
ACG 6145	Seminar in Accounting Theory II[2]	3
ACG 6625	EDP Auditing \ Concept and Procedures	3
ACG 6675	Studies in Auditing II	3
ACG 6875	Evolution of Accounting Thought	3

[1] Designed primarily for the Financial Accounting track

[2] Designed primarily for the Managerial Accounting track

Master of Science in Taxation

The M.S.T. program is designed to prepare the student for either entry or advancement in the highly specialized area of taxation. The curriculum is flexible in order to provide the student with a background in the various aspects of the tax area. Students, in consultation with the Graduate Counselor for accounting and tax programs and the Coordinator of the Tax Program, may develop their own specializations. The final program of studies must be approved by the Graduate Counselor for accounting and tax and the Director of the School of Accounting.

M.S.T. Program of Study

Required Courses: (12 semester hours)

TAX 6065	Income Tax Research	3
TAX 6105	Taxation of Corporations I	3
TAX 6405	Estate and Gift Taxation	3
TAX 6875	Current Developments in Taxation	3

Additional Courses: four courses (12 semester hours) in tax

Electives: two non-tax courses (six semester hours), at least one must be in accounting, approved by the Graduate Advisor.

TAX 6876	Transactions in Property	3
TAX 6835	Taxation of Deferred Compensation	3
TAX 6805	Tax Accounting Theory and Procedures	3
TAX 6115	Taxation of Corporations II	3
TAX 6205	Partnership Taxation and Tax Shelters	3
TAX 6415	Fiduciary Accounting and Taxation	3
TAX 6877	Seminar in Taxation	3
TAX 6445	Estate Planning	3
TAX 6505	International Taxation I	3
TAX 6515	International Taxation II	3

Florida CPA Requirement

Completion of a Bachelor of Business Administration degree program with emphasis in accounting, while available, will not be accepted by the Florida State Board of Accountancy as fulfilling requirements to sit for the Certified Public Accounting Examination after August 1, 1983.

The law relating to the practice of public accounting (Chapter 473, Florida Statutes 1979) provides in Rule 21A-27.02, Concentrations in Accounting and Business, that:

1. For purposes of Section 473.307,F.S., if application for the Uniform CPA Examination is made prior to August 2, 1983, an applicant must have a baccalaureate degree from an accredited college or university with a major in accounting or its equivalent, with a concentration in accounting and business. A concentration in accounting and business is defined as an educational program that includes at least 18 semester hours or 27 quarter hours, or the equivalent in accounting education above the elementary level and 27 semester hours

or 40 quarter hours, or the equivalent, in general business education. In order to meet the provisions of F.S. 473.307, the application must be filed, completely and approved and show on its face that all educational and other requirements have been met prior to August 2, 1983.

2. For purposes of Section 473.307, F.S., if application is made after August 1, 1983, an applicant must have at least a baccalaureate degree, or its equivalent, from an accredited college or university with a major in accounting, or its equivalent, plus at least 30 semester hours or 45 quarter hours, or the equivalent from an accredited college or university, in excess of those required for the baccalaureate degree including a total educational program with a concentration in accounting and business as follows:

a. 36 semester or 54 quarter hours in accounting education above elementary level which shall include not less than: 12 semester or 18 quarter hours in financial accounting which may include cost accounting, 6 semester or 8 quarter hours in auditing (after November 30, 1985, system courses and internal control courses do not meet this requirement) and 6 semester or 8 quarter hours in taxation; and not more than 3 semester or 4 quarter hours may be in internship programs which may be applied to the 36 hours in accounting but not auditing, financial accounting or taxation. Further, any remaining internship credits if otherwise acceptable would be applied to the general business requirement, and

b. 39 semester or 58 quarter hours in general business education which shall include not less than 6 semester or 8 quarter hours in business law. Vocational and clerical type courses will not count either toward the accounting requirement set forth in Rule 21A-27.02(2) or this general business education requirement. Specialized industry courses will be acceptable as general business courses but not as accounting courses unless as defined in Rule 21A-27.02(2) they have an accounting prefix. Further, such courses, in order to qualify must be certified by the chairman of the school or college's accounting department as qualifying for general business credit. Written or oral communication courses will qualify for the general business requirement if they have a business or accounting prefix or if they are reflected in the catalog in the school or college as relating directly to the school or college's business or accounting requirements. A maximum of 9 semester hours (13 quarter hours) of business oriented computer courses and 6 upper division semester hours (8 quarter hours) of statistics courses will be accepted for the purposes of meeting to the general business requirement.

3. For purposes of this rule, accounting hours other than elementary above the minimum requirement may be substituted for general business hours. Elementary accounting subjects shall not be accepted as general business education. All accounting courses for the purposes of Rule 21A-27.02(2) and at least 21 semester hours (32 quarter hours) of general business courses must be at the upper division level.

4. Re-applicants whose original application for the CPA examination was approved prior to August 2, 1983 may elect to satisfy Rule 21A-27.02(1).

Note: All School of Accounting 6000-level courses, including those with a TAX prefix, have been approved by the Florida State Board of Accountancy as meeting the requirements for the additional credit hours required for the CPA Examination. With a carefully planned program of study, a student who earns either a M.Acc. or a M.S.T., will be qualified to sit for the Certified Public Accounting Examination, and upon successful completion of the examination be certified in the State of Florida. There is no additional experience required.

Decision Sciences and Information Systems

Daniel Robey, *Professor and Chairperson*
Jack Gilman, III, *Lecturer*
Sushil K. Gupta, *Professor*
Peter J. Kirs, *Assistant Professor*
Jerzy Kyparisis, *Assistant Professor*
Tomislav Mandakovic, *Associate Professor*
Valdur Silbey, *Associate Professor*
Larry A. Smith, *Associate Professor*
Steve H. Zanakis, *Professor*
Peter J. Zegan, *Lecturer*

The Department of Decision Sciences and Information Systems offers coursework in the areas of Management Information Systems, Management Science, Production/Operations Management, and Business Statistics at both the graduate and undergraduate levels. Students may pursue at the undergraduate level a major in Management Information Systems; and at the graduate level a Master of Science in Management Information Systems.

Management Information Systems Undergraduate Program

The undergraduate program in Management Information Systems (MIS) emphasizes the design, development, implementation, and use of information technology to solve organizational problems effectively. The program is designed to prepare graduates for entry-level positions in the profession of MIS, whether in user or in system departments. This program is a natural continuation for students who have completed a business data processing program at the lower division.

The MIS program is composed of the following three parts:

Business Core: Twelve courses (36 hours). See General Business Requirements.

Major Courses: Four courses (12 semester hours)

ISM 4113	Systems Analysis and Design	3
ISM 4210	Data Base Applications	3
ISM 4151	Systems Management	3
ISM 4340	Organizational Impacts of Information Systems	3

Electives: Four courses (12 semester hours) Electives should be taken from approved courses in Computer Science, Business, or other Departments. CGS 3403 COBOL for Non-Computer Science Majors or CGS 3403 Data Processing and COBOL, or equivalent, must be taken before ISM 4113.

CGS 3403 or CGS 3403 may be counted as an elective. CGS 3300 Introduction to Information Systems is part of the Business Core and may not be counted as an elective.

Master of Science Program

The Master of Science in MIS program emphasizes advanced study in the analysis, design, implementation and overall management of information systems in organizations. This program is designed to prepare graduates for positions of advanced responsibility in both systems and user departments. The program is a natural extension of undergraduate study in business or computer science. Students with other backgrounds will normally require additional courses to satisfy the general College's requirements.

The M.S. in MIS program consists of courses in three areas:

Prerequisites: Ten courses (30 semester hours)

CGS 3403	COBOL for Non-Computer Science Majors	3
COP 2172	Programming in BASIC	3
ECP 6705	Managerial Economics	3
FIN 6428	Financial Management	3
MAN 3025	Organization and Management	3
MAN 6501	Operations Management	3
MAN 6830	Organization Information Systems	3
MAR 6716	Marketing Management	3
QMB 3003	Business Mathematics	3
QMB 6603	Quantitative Methods in Management	3

All of the courses listed above can be waived if they, or their equivalents, have been taken previously. Students may substitute one programming language other than BASIC or COBOL for one of these required two languages.

Required Courses: Ten courses (30 semester hours)

ACG 6308	Accounting for Decision Making	3
MAN 6721	Managerial Decision Making	3
MAN 6726	Policy Analysis	3
MAN 6815	Computer Administration	3
MAN 6837	Data Structures and File Processing	3
MAN 6838	Information Systems Analysis and Design	3
MAN 6839	Decision Support Systems	

MAN 6896	Current Economic and Social Implications of Information Systems	3
MAN 6911	Research in Systems Development	3
QMB 6845	Simulation of Management Systems	3

Electives: Two courses (6 semester hours)
Electives may be selected from the following courses:

MAN 6585	Productivity Management	3
MAN 6807	Microcomputer Applications in Business	3
MAN 6833	Information Systems Planning	3
MAN 6894	Special Topics in MIS	3
MAN 6895	Seminar in Management Science	3
QMB 6875	Project Management	3

Other elective courses may be taken with the approval of the graduate counselor. Prerequisite courses at the graduate level may be counted as electives.

A minimum of 36 hours is required for graduation. this may be reduced to 30 hours for students with a graduate degree in Business Administration or related area. Graduation requirements include a minimum overall GPA of 3.0. Courses with a grade below a 'C' will not be accepted for graduate credit.

Finance

Robert Bear, *Professor and Chairperson*
William R. Beaton, *Professor*
Robert T. Daigler, *Associate Professor*
Krishnan Dandapandi, *Assistant Professor*
Karen Duhala, *Assistant Professor*
Soga Ewedemi, *Assistant Professor*
James Keys, *Instructor*
Simon Pak, *Associate Professor*
Ali Parhizgari, *Associate Professor*
Elena Pernaa, *Instructor*
Arun Prakash, *Professor*
Emmanuel Roussakis, *Professor*
George B. Simmons, *Distinguished Service Professor*
William Welch, *Associate Professor and Associate Director, Center for Banking Research*

The Department of Finance offers an undergraduate major in Finance, and a Master of Science in Finance (M.S.F.).

Undergraduate Finance Major

The Finance program leading to the BBA degree is designed to give the undergraduate student managerial finance skills in the areas of banking, corporate finance, investments, and financial markets. The program consists of:

1. 36 semester hours of general business core courses
2. 12 semester hours of finance core courses:

FIN 3414	Intermediate Finance
FIN 4303	Financial Markets and Institutions
FIN 4324	Commercial Bank Management
FIN 4502	Security Analysis

3. Nine semester hours of finance electives selected from any 4000 or 5000 level FIN prefixed courses.
4. A three semester hour free elective course. (International Business double majors are required to complete FIN 4611 International Finance, MAN 4600 International Management, and two additional 4000 and 5000 level International Business courses).

Master of Science in Finance

This graduate program leading to the degree of Master of Science in Finance (MSF) is offered primarily for students with an undergraduate business degree who want to concentrate in Finance at the graduate level. The MSF program is designed to extend analytical skills and decision-making abilities in the solution of problems related to obtaining and utilizing funds. Graduates will also have a sound working knowledge of current developments and opportunities as they pertain to financial institutions, capital markets, and the corporate enterprise.

Content and Structure

The program has a minimum of 36 semester hours (12 courses).

Group 1 — Common Body of Knowledge
All or some of the common body courses can be waived (without substitution) depending on the student's prior education. Students with a recent degree in Business Administration from a regionally accredited university should be able to waive most or all of the Common Body Courses. The areas covered under common body of knowledge are financial and cost accounting, legal environment in business, economics, financial management and policy, operations management, managerial decision making, organizational information systems, marketing, and organizational theory. If a student is deficient in any of these areas, the student will be required to fulfill the requirement by taking the appropriate courses. As part of the common body for Finance majors, students will be required to take FIN 6428 (Financial Management); this requirement will be waived if the student has satisfactorily completed two undergraduate Corporate Finance courses.

Group 2 — Finance Core Courses
All MSF — Finance students are required to take the following courses:

FIN 6246	Financial Markets and Institutions
FIN 6516	Security Analysis
FIN 6636	International Finance
FIN 6806	

Group 3 — Finance Electives
Nine hours of approved Finance electives, other than those mentioned in Group 1 and Group 2, must be completed.

Group 4 — Five Related Electives
Students will be required to select five 6000-level courses from concentrations in business, economics, computer science, and other related areas. Students will be permitted, but not required, to concentrate in one area. These electives must be chosen with prior approval of the MSF program advisor.

The 36 semester hours requirement may be reduced to 30 for students who possess an accredited Master's Degree in Business Administration (this would result in the reduction of two related electives). Up to two graduate courses may be transferred in from another accredited school, even if no advanced degree was obtained.

Management and International Business

Dana L. Farrow, *Associate Professor and Chairperson*
Robert Amann, *Assistant Professor*
Constance S. Bates, *Associate Professor*
Leonard H. Chusmir, *Associate Professor*
Gary Dessler, *Professor*
Herman Dorsett, *Associate Professor*
Earnest Friday, *Assistant Professor*
Ronald Gilbert, *Associate Professor*
Jerry Haar, *Associate Professor*
Richard M. Hodgetts, *Professor*
William T. Jerome, *Distinguished University Professor*
Willabeth Jordan, *Instructor*
K. Galen Kroeck, *Associate Professor*
Jan B. Luytjes, *Professor*
Karl O. Magnusen, *Associate Professor*
Modesto A. Maidique, *Professor and University President*
Joan Mills, *Associate Professor*
John J. Morse, *Professor*
Eleanor Polster, *Instructor*
William E. Renforth, *Professor*
Leonardo Rodriguez, *Professor*
Ronnie Silverblatt, *Assistant Professor*
Christine Spector, *Assistant Professor*
George Sutija, *Associate Professor*
William M. Taggart, *Professor*
Enzo Valenzi, *Professor and Associate Dean*

The Department of Management and International Business offers programs of study at the Bachelor's level in General Management, International Business, and Personnel Management.

General Management and Personnel Management Majors

The student is given wide latitude either to specialize in one particular area, or to select from courses on a more general level of professional education. The curriculum is designed to allow students to prepare for employment in business or other profit organizations. The emphasis is on developing immediately applicable skills in management within a broader framework of general concepts and theory. Flexibility is allowed and students are permitted to take up to 12 hours of electives in other fields, particularly in economics, mathematics, and psychology in 3000- and 4000-level courses not a part of the College's pre-core. Electives in fields other than these must have the prior approval of the Department Chairperson. The Management major requires 12 semester hours of courses listed with the Department at the 4000 level. Note that not all courses with an MAN prefix are Management courses.

Major courses for Management students in specific subject areas:

Personnel Management Major: (Select 4 of 6)

MAN 4401	Industrial Relations
MAN 4410	Labor, Management, and Collective Bargaining
MAN 4301	Personnel Management
MAN 4320	Personnel Recruitment and Selection
MAN 4322	Personnel Information Systems
MAN 4330	Wage and Salary Administration.

General Management Major

MAN 4142	Managerial Decision Styles

and any three other Management or Personnel Management courses listed with the Management and International Business Department. (Students are urged to confer with their academic counselor regarding eligible courses.)

Note: Elective courses outside the CBA must be taken in the Departments of Economics, Mathematical Sciences, or Psychology. Exceptions may be permitted only with the approval of the Department Chairperson. Elective courses taken in other departments must be taken for letter grade only.

International Business Major

The Department of Management and International Business offers a second undergraduate major in International Business to students with other majors in the College of Business Administration.

The objective of the undergraduate International Business major is to provide eligible students with an intensive, in-depth study of the international dimension of business operations. Students are required to take the following courses, in addition to the program for the functional major:

1. MAN 4600 International Management
2. Three of the following courses:

ACG 4251	International Accounting (required for Accounting IB majors)
FIN 4611	International Financial Management (required for Finance IB majors)
MAN 4671	Special Topics in International Business
MAN 4690	Independent Study in International Business
MAR 4243	International Marketing (required for Marketing IB majors)
MAR 4244	Export Marketing
ECO 4701	World Economy
ECO 4733	Multinational Corporations

Master of International Business (MIB)

The Department offers a graduate degree, the Master of International Business, and the graduate level Certificate in International Business. (See Certificate Programs). The objective of the MIB program is to prepare graduates from any discipline for careers in international business management or in governmental and intergovernmental agencies at home and abroad. The program consists of 39 semester hours of courses that build an understanding of the international political, social, and economic environment in which multinational corporations operate upon the basic frameworks of international economics and management science. Students who have not previously taken business courses will be required to take a preparatory program in accounting (ACG 6005), economics (ECP 6705), statistics (QMB 6603), business and legal environment (GEB 6405), management (MAN 3025), and marketing (MAR 6716). A knowledge of a computer language must be demonstrated, otherwise COP 3172 Programming in BASIC must be taken.

In addition to the required courses listed below, a student must demonstrate basic reading and speaking proficiency in one major world commercial language other than English in order to graduate.

ACG 6308	Accounting for Decision Making
MAN 6207	Organization and Management Theory
FIN 6428	Financial Management
MAR 6246	International Marketing
ECO 5701	The World Economy
MAN 6608	International Business
MAN 6721	Managerial Decision Making
MAN 6713	International Business Environment
FIN 6636	International Finance
MAN 6501	Operations Management
MAN 6635	International Business Policy
MAN 6830	Organizational Information Systems
INR 6205	World Politics

Marketing and Environment

Yao Apasu, *Assistant Professor*
Anne Fiedler, *Instructor and Assistant Dean*
Dennis J. Gayle, *Associate Professor*
Jonathan N. Goodrich, *Associate Professor*
Robert Hogner, *Associate Professor*
Carl Kranendonk, *Instructor*
Henry A. Laskey, *Assistant Professor*
J.A.F. Nicholls, *Associate Professor*
Maria Ortiz, *Associate Professor*
Ved Prakash, *Assistant Professor*
Lynda Raheem, *Instructor*
Sydney Roslow, *Professor and Associate Dean, North Miami Campus*
Bruce Seaton, *Associate Professor*
Philip Shepherd, *Assistant Professor*
Richard R. Still, *Professor*

Undergraduate Marketing Major

The Marketing Major requires 15 semester hours of senior (4000) level marketing course work, of which the following nine hours are required:

MAR 4503	Consumer Behavior
MAR 4613	Marketing Research
MAR 4713	Cases in Marketing Management

The remaining six hours are selected by the student with his or her advisor from other Marketing course offerings. It is suggested that students concentrate in a specific area and take, for example:

1. Advertising Concentration

MAR 4303	Advertising Management
MAR 4344	Advertising Campaign Management

2. Sales Concentration

MAR 4103	Personal Selling
MAR 4403	Sales Management

3. Retailing Concentration

MAR 4153	Retailing Management
MAR 4154	Cases in Retailing Management

4. International Concentration

MAR 4243	International Marketing
MAR 4244	Export Marketing

5. Distribution Concentration

MAR 4203	Marketing Channels
MAR 4213	Transportation Logistics

Marketing majors, however, may choose courses from any other undergraduate marketing offerings or any mix of courses.

Approved Electives: Marketing majors may select any 4000-level business course as an elective. With the prior approval of the Counseling Office, certain non-business courses also may be used as electives (depending upon their relevance to the student's academic program and career objectives).

Certificate Programs

General Information

The overall purpose of the Certificate Programs is to provide practicing managers with advanced training in the techniques and methods pertinent to their areas. The programs are for both degree and non-degree seeking students, and are available in the areas of Banking, Insurance, International Bank Management, International Business, Savings and Loan, and Marketing. A Certificate is awarded upon successful completion of each program. Students seeking to enroll in the undergraduate Insurance, or Marketing Certificate Programs must meet upper division College of Business Administration admission requirements. Students wishing to enter the Banking, International Bank Management, International

Business, or Savings and Loan Certificate Programs must meet all prerequisites for courses in those respective programs. Please contact the Business Counseling Office at 554-2781 for application details. In all cases, students must apply to, and be accepted into the various Certificate Programs. Upon successful completion of the appropriate course work, and upon application by the student to the appropriate department, a Certificate of Completion will be awarded.

Advanced Certificate in Accounting

The purpose of the certificate program is to provide a structured program of graduate level instruction for those who do not wish to enroll in a graduate degree program; who need to satisfy mandatory continuing professional education requirements of any state; and who need to satisfy post-baccalaureate course credits to qualify for the CPA in Florida or any other state requiring a fifth year of education to sitting for the CPA examination.

Admission

To be admitted to the certificate program, a student must have graduated from an accredited university degree program in accounting, or be a graduate of any other business discipline, provided that the student's transcript shows a completion of at least nine semester hours in accounting courses beyond the principles level with grades of 'B' or higher. Each student's transcript will be evaluated by an advisor to ensure that all deficiencies are satisfied.

Students applying for admission to the certificate program must submit current transcripts from all colleges or universities attended.

The certificate program consists of ten courses selected from the list below. However, students are allowed to attend classes in the program without completing the entire certificate program. None of these courses will be transferable for graduate credit in College of Business Administration degree programs.

Required Courses: (30 semester hours)

ACG 5175	Issues and Problems in Accounting for Nonprofit Entities	3
ACG 5395	Seminar in Managerial Accounting	3
ACG 5656	Operational Auditing	3
ACG 5657	Systems Auditing	3
ACG 5695	Seminar in Accounting	3
ACG 5805	Seminar in Financial Accounting	3
ACG 5837	International Dimensions of Accounting and Auditing	3
ACG 5695	Statistical Methods in Accounting and Auditing	3
ACG 5005	Standards and Principles of Financial Accounting	3
ACG 5356	Advanced Managerial Accounting	3
ACG 5386	Controllership	3
ACG 5905	Independent Study in Accounting and Auditing	3
ACG 5895	Special Topics in Accounting and Auditing	3
BUL 5105	Legal Environment of Business	3
BUL 5666	Accountant's Liability	3
BUL 5665	Law for Accountants	3
TAX 5406	Taxation of Estates and Trusts	3
TAX 5065	Taxation Research and Reporting	3
TAX 5105	Corporation Taxation	3
TAX 5516	International Dimensions of Taxation	3
TAX 5726	Tax Planning	3
TAX 5875	Seminar in Taxation	3
TAX 5904	Independent Study in Taxation	3
TAX 5936	Special Topics in Taxation	3

Banking Certificate

The CIB (Certificate in Banking) is designed for practicing bank managers and bank employees. The core program consists of four undergraduate or graduate Finance courses. Upon successful completion of the four course sequence, a Certificate signed by the Dean of the College of Business Administration will be awarded.

Participants in the CIB Program must meet certain admission requirements. In general, those intending to take undergraduate level courses must have an Associate of Arts Degree or its equivalent, and must meet the other lower division preparation requirements of the College. Participants planning to take graduate level courses must hold a Bachelor's degree, submit a satisfactory score on the Graduate Management Admissions Test, provide transcripts of all undergraduate work, and meet all admission requirements of the College's graduate programs.

Specific program requirements for the Certificate in Banking program:

FIN 3414	Intermediate Finance	3
or		
FIN 6426	Financial Management Policies	
FIN 4303	Financial Markets and Institutions	3
or		
FIN 6246	Financial Markets and Institutions	
FIN 4324	Commercial Bank Management	3
or		
FIN 6315	Commercial Banking	
FIN 4345	Credit Analysis and Loan Evaluation	3
or		
FIN 6346	Credit Analysis	

Applicants who are interested in pursuing a Master's degree in Finance should take FIN 6426, FIN 6246, FIN 6315, and FIN 6346 rather than FIN 3414, FIN 4303, FIN 4324, and FIN 4345.

International Bank Management Certificate

The Certificate in International Bank Management (CIBM) is designed to train existing and future bankers in the areas of international banking policy, practice, and technique. Its interest is to provide an interface between the domestic and international side of banking for bank managers.

Participants in the CIBM must meet the admission requirements listed for the Certificate in Banking Program.

Required Courses

FIN 3414	Intermediate Finance	3
or		
FIN 6426	Financial Management Policies	
FIN 4324	Commercial Bank Management	3
or		
FIN 6315	Commercial Banking	
or		
FIN 6325	Current Issues in Commercial Banking	
or		
FIN 4345	Credit Analysis and Loan Evaluation	
or		
FIN 6345	Credit Analysis	
FIN 4611	International Financial Management	3
or		
FIN 6636	International Finance	
FIN 4627	International Banking	3
or		
FIN 6625	International Bank Management	

Applicants with a Bachelor's Degree who are interested in pursuing a Master's degree in Finance should take FIN 6426, FIN 6636, FIN 6625, and either FIN 6315, FIN 6325, or FIN 6345 rather than FIN 3414, FIN 4324, FIN 4345, FIN 4611, FIN 4627.

Certificate in International Business

A Certificate program is available to graduate students wishing to acquire an in-depth understanding of international business, but who find it unnecessary or inconvenient to enroll for a graduate degree program. Such students may already have the MBA degree, or an undergraduate business degree.

Students in the Certificate in International Business program must meet the general admission requirements for graduate study in the College of Business Administration, and satisfactorily complete an approved program of study consisting of four courses, as follows:

MAN 6608	International Business	3
MAN 6635	International Business Policy	3

And two graduate international business courses approved by the Chairperson of the Department of Management and International Business.

Marketing Certificate

Students enrolling in the Marketing Certificate must be admitted to an upper division University program. This certificate is not open to Marketing majors.

The program is comprised of six three-credit hour undergraduate marketing courses, one introductory course at the junior (3000) level, the prerequisite for all the other courses in the program, and five at the senior (4000) level.

Required Courses

MAR 3023	Marketing Management	3
MAR 4153	Retailing Management I	3
MAR 4303	Advertising Management	3

For electives, students take three courses from the following marketing classes and other selected courses:

MAN 3701	Business and Society
MAR 4154	Cases in Retailing Management
MAR 4713	Cases in Marketing Management
MAR 4243	International Marketing
MAR 4244	Export Marketing
MAR 4503	Consumer Behavior
MAR 4613	Marketing Research
MAR 4344	Advertising Campaign Management
MAR 4103	Personal Selling
MAR 4203	Marketing Channels
MAR 4403	Sales Management
MAR 4723	Marketing of Small Business Enterprises

On satisfactory completion of the program, signified by a grade of 'C' or higher in each course, students will, on application, receive a Certificate in Marketing signed by the Department Chairperson and the Dean of the College.

Course Descriptions

Definition of Prefixes:
ACG—Accounting; BAN—Banking; BUL—Business Law; CIS—Computer and Information Systems; FIN—Finance; MAN—Management; MAR—Marketing; QMB—Quantitative Methods in Business; REE—Real Estate; RMI—Risk Management and Insurance; Tax—Taxation.

Departmental or School/College Designation:
AC—Course taught by School of Accounting
BA—Interdepartmental course taught by College of Business Administration
DS—Course taught by Department of Decision Sciences and Information Systems
EC—Course taught by Department of Economics, College of Arts and Sciences
FI—Course taught by Department of Finance.
MA—Course taught by Department of Management and International Business
ME—Course taught by Department of Marketing and Environment
MS—Course taught by Department of Mathematical Sciences, College of Arts and Sciences

ACG 3021 Accounting for Decisions (AC) (3). Accounting concepts and analyses essential to determining the income and financial position of a business enterprise. Prerequisites: ECO 3021, ECO 3011, STA 3132, or equivalent and sophomore standing.

ACG 3301 Accounting for Planning and Control (AC) (3). Use of accounting concepts, analyses, and financial data to aid in the evaluation of the business enterprise; and to aid management in its planning, organizing, and controlling functions. Prerequisites: At least six semester hours of introductory financial and managerial accounting with grades of 'C' or higher, or ACG 3021 with a grade of 'C' or higher, and successful completion of a readiness examination. Must be taken within the first 30 hours of upper division work.

ACG 4101 Financial Accounting I (AC) (3). An exploration of concepts, standards, and principles underlying financial reporting, with emphasis on the measurement, analysis, and interpretation of income and changes in financial position (funds flow). Prerequisites: Calculus I and Logic with grades of 'C' or higher, ACG 3301 with a grade of 'B' or higher, successful completion of a readiness examination, and junior standing.

ACG 4111 Financial Accounting II (AC) (3). A continuation of ACG 4101, with emphasis on the accounting concepts, standards, and principles underlying the measurement and reporting of financial position. Prerequisite: ACG 4101 with grade of 'C' or higher.

ACG 4201 Financial Accounting III (AC) (3). A continuation of ACG 4111, with emphasis on accounting for partnerships, consolidated financial statements, and financial statement analysis. Prerequisite: ACG 4111 with grade of 'C' or higher.

ACG 4251 International Accounting (AC, MA) (3). Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurement; and the role of accounting in national economic development. Prerequisite: ACG 3301 with a grade of 'C' or higher.

ACG 4341 Managerial Accounting (AC) (3). Determination and control of production costs; job order and process systems; actual and standard costs; budgetary control; cost and profit analyses; and other methods of performance measurement and analysis. Prerequisites: ACG 4101 and MAN 3503 with grades 'C' or higher.

ACG 4401 Accounting Information Systems (AC) (3). Fundamentals of information systems and use of computers in the accounting system of business enterprises. Development of computer technology, techniques of flow charting, and basic design of accounting applications. Student project includes use of computer time-sharing terminal to simulate communications and coordination between accountants and data sharing personnel. Prerequisites: COP 2172 or equivalent, ACG 4341, and ACG 4651.

ACG 4651 Auditing (AC) (3). Standards and procedures applied by independent public accountants, ethics and responsibilities of auditors, development of audit programs, accumulation of audit evidence, and reporting. Prerequisite: ACG 4111 with grade of 'C' or higher.

ACG 4901 Independent Study in Accounting (AC) (1-3). Individual conferences, supervised readings, and reports on personal investigations.

ACG 4931 Special Topics in Accounting (AC) (1-3). For groups of students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

ACG 5137 Standards and Principles of Financial Accounting (AC) (3). A survey of official pronouncements on accounting standards and principles. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5256 International Dimensions of Accounting and Auditing (AC) (3). Review of and reasons for variations in accounting and auditing practices throughout the world; explore initiatives undertaken to promote transparency, harmonization, and standardization to facilitate understanding of financial statements prepared under various conventions. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5307 Advanced Managerial Accounting (AC) (3). In depth study of determination and control of production costs; budgetary control; CVP analysis; and alternative methods of performance measurement and analysis. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5386 Controllership (AC) (3). Study of controllership function; role of controller in planning, accounting for, and evaluating company performance; relationship with internal auditing. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5395 Seminar in Managerial Accounting (AC) (3). An in-depth study of selected areas of managerial accounting. Prerequisite: ACG 4341 or equivalent and Permission of Accounting certificate program advisor.

ACG 5507 Issues and Problems in Accounting for Non-Profit Entities (AC) (3). Study and analysis of accounting, reporting, and control standards and practices of non-profit organization — including accounting for governments, hospitals, universities, churches, and others. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5625 Systems Auditing (AC) (3). Principles and procedures of auditing systems of information, including the function, approach, and techniques of systems auditing and the evaluation of systems controls. Emphasis on auditing computerized systems. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5675 Operational Auditing (AC) (3). Examines operational auditing as a professional discipline for testing and evaluating totality of planning and operating controls; particular attention to development, "selling" and implementation of recommendations for operating improvement and cost containment. Prerequisite: Permission of Accounting certificate program advisor.

ACG 5695 Seminar in Auditing (AC) (3). An in-depth study of recent developments in auditing. Prerequisite: ACG 4651 or equivalent and permission of Accounting certificate program advisor.

ACG 5805 Seminar in Financial Accounting (AC) (3). An in-depth study of recent developments in financial accounting. Prerequisite: ACG 4111 and permission of Accounting certificate program advisor.

ACG 5846 Statistical Methods in Accounting and Auditing (AC) (3). Formulation, analysis and implementation on a microcomputer of mathematical models in financial and managerial accounting and auditing. Prerequisite: Permission of Accounting certificate advisor.

ACG 5905 Independent Study in Accounting and Auditing (1-3). Individual conferences, supervised readings, and reports on personal investigations. Prerequisites: Written permission of instructor, accounting certificate program advisor, School Director, and Dean.

ACG 5936 Special Topics in Accounting and Auditing (AC) (3). For groups of students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisite: Written permission of instructor, accounting certificate program advisor, School director, and dean.

G 6005 Financial Accounting Analysis (AC) (3). Introduction to the theory and practice of financial accounting and reporting, with emphasis on understanding and determining income and financial position. (No credit will be given to students who have had undergraduate or graduate equivalents). Prerequisite: QMB 6603 or equivalent.

ACG 6135 Seminar in Financial Accounting Theory I (AC) (3). A study of the theoretical structure of accounting, with special attention to asset and income definition, recognition, and measurement; and an appraisal of pronouncements of professional accounting organizations. Prerequisite: ACG 4201 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6145 Seminar in Financial Accounting Theory II (AC) (3). A continuation of ACG 6135, with emphasis on the problems of accounting for price-level changes and other current issues. Prerequisite: ACG 6135 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6255 International Accounting (AC) (3). Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurements; the role of accounting in national economic development. Prerequisite: ACG 4201 or equivalent, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6308 Accounting for Decision Making (AC) (3). The uses and limitations of accounting data as sources of information for managerial decisions. Prerequisite: ACG 6005.

ACG 6346 Seminar in Managerial Accounting I (AC) (3). Analysis of transfer pricing; product pricing; incremental profit analysis; decision models; alternative performance measurement techniques; and other advanced topics. Prerequisite: ACG 4341 or ACG 6308, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6356 Seminar in Managerial Accounting II (AC) (3). A study of the controllership function in corporate organizations; an appraisal of the controller's role in planning, accounting for, and evaluating company performance; and relationship to internal audit function. Prerequisite: ACG 4341 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6405 Seminar in Accounting Information Systems I (AC) (3). Application of general systems concepts to accounting; operational, and related planning; and control information requirements. Data base management systems, on-line real-time systems, time-sharing, etc., and applications in accounting. Emphasis on the analysis of computer-based controls, case histories and projects. Prerequisite: ACG 4401 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6415 Seminar in Accounting Information Systems II (AC) (3). A continuation of ACG 6405, with emphasis on the theories underlying complex information systems. Prerequisite: ACG 6405 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6505 Governmental and General Cost Accounting Functions (AC) (3). Describes accounting treatment for general and other accounting funds and associated account groups; illustrates governmental financial reporting; treats cost accounting in governments including theory, systems, standards and procedures. Prerequisites: ACG 3301 or equivalent; and admission to graduate program in the School of Accounting or permission of School Director.

ACG 6506 Governmental and Institutional Accounting (AC) (3). Budgeting, accounting, and reporting standards and practices for government and other not-for-profit entities. Prerequisite: ACG 4111 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6515 Advanced Governmental Accounting (AC) (3). Treats the developing concept of consolidated financial statements for governments. Also covers advanced areas of accounting, e.g., concepts, investment accounting, grant accounting, and pension accounting. Prerequisites: ACG 6505, ACG 6584, admission to graduate program in School of Accounting or permission of School Director.

ACG 6516 The Environment of Government Accounting (AC) (3). Basic public administration emphasizing governmental processes with which governmental accountants and auditors come into contact. Includes legislative and administrative activities and operating functions having high accounting and auditing involvement. Prerequisite: Admission to graduate program in School of Accounting or permission of School Director.

ACG 6517 Audit of Governmental Entities (AC) (3). Covers methods of audits of governments by independent public accountants, coordination with internal audit staffs; describes audits of governments by internal auditors (audits of fidelity, efficiency and effectiveness); covers current single audit concept. Prerequisites: ACG 6505, admission to the graduate program in the School of Accounting, or permission of School Director.

ACG 6518 Historical and Comparative Government Accounting. (AC) (3). Research and reporting on subjects in the history of, or on comparative aspects of, government accounting. Prerequisite: Admission to the graduate program in the School of Accounting or permission of School Director.

ACG 6519 Contemporary Issues in Government Accounting (AC) (3). Research and reporting on current issues related to government accounting. Prerequisite: Admission to graduate program in School of Accounting or permission of School Director.

ACG 6545 Analysis of Governmental Financial Reports (AC) (3). Describes content of government financial reports and analytical methods employed by internal and external users; covers concepts of disclosure, budget/actual analysis, credit evaluations, operational evaluations, measures of fiscal capacity and signs of fiscal stress Prerequisites: ACG 6515 and admission to graduate program in the School of Accounting or permission of School Director.

ACG 6546 Governmental Planning and Budgetary Accounting with Cases (AC) (3). Budgeting in governments emphasizing formulation based on accounting and auditing input. Budget execution and analysis of deviations of actual from budgets; study of ZBB, PPBS, and MBO systems and their behavioral and accounting bases. Prerequisites: ACG 6505, ACG 6525 and admission to the graduate program in the

School of Accounting or permission of the School Director.

ACG 6596 Accounting for Specialized Governmental and Nonprofit Entities (AC) (3). Survey course by guest lecturers covering detailed accounting concepts, procedures, and reporting for enterprise fund entities, educational entities, and unique types of internal service funds. Prerequisites: ACG 6505, and admission to the graduate program of the School of Accounting or permission of the School Director.

ACG 6625 EDP Auditing Concepts (AC) (3). To convey an understanding of computer auditing concepts and practices intended to express opinion on financial statements, evaluate effectiveness of controls, and prepare meaningful management letter. Prerequisites: ACG 4651, ACG 4401, and admission to graduate program in School of Accounting or permission of School Director.

ACG 6675 Studies in Auditing II (AC)(3). This course examines auditing in depth as a professionalized discipline for reviewing testing, and evaluating the financial and the operational activities and controls of an economic entity. Focus will be directed to private sector profit seeking entities as well as governmental and other nonprofit organizations. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6696 Studies in Auditing I (AC) (3). Professional and technical aspects of auditing practice; ethics and legal responsibilities; review of field work emphasizing materiality, sampling, and working papers, reporting problems including long-form and special purpose reports; study of recent auditing developments. Prerequisite: ACG 4651 and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6835 Behavioral Accounting (AC) (3). Study of the effect of the process and products of accounting and of the relation of changes in the process and products to individual and group behavior; consideration of ways in which accounting can aid individuals and organizations to attain their goals. Prerequisites: ACG 4111 and 4341 or equivalents, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6845 Accounting and Quantitative Methods (AC) . (3). Study of statistical and management science techniques that are or may be utilized in financial and managerial accounting. Prerequisites: MAN 3503, QMB 3150 and ACG 4401, or equivalents, and admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6875 Evolution of Accounting Thought (AC) (3). The cultural origins of accounting and its traditional controversies, from prehistoric time onward, and in an international context. Prerequisites: Admission to graduate program in School of Accounting or permission of School Director.

ACG 6885 Accounting Research and Reporting (AC) (3). Examine the projects relating to historical and current problems in public accounting practice, and preparation of appropriate reports in oral and written formats, under a variety of professional settings. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6905 Independent Study in Accounting (AC) (1-3). Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 6935 Special Topics in Accounting (AC) (1-3). Intensive study for groups of stundents of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

ACG 7157 Seminar: Theory and Contemporary Research in Financial Accounting (AC) (3). An evaluative overview of the classical literature in financial accounting and the contemporary empirical research published in the leading scholarly journals. Examined are income determination theories, normative accounting principles, accounting information and stock prices, and principal-agent relationships. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7177 Seminar: Accounting Information and Security Prices (AC) (3). An in-depth examination of accounting information and security prices within capital markets theory, including a thorough examination of the cross-sectional properties and time-series properties of accounting numbers and the importance of research findings and new developments in research methodology. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7436 Seminar: Information Value and Agency Research Accounting (AC) (3). An in-depth examination of the research paradigm and the associated empirical research in accounting and auditing. Examined are the issues of information value, risk aversion, risk sharing contracts, as well as accountability from the standpoint of monitoring contracts. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7695 Seminar: Contemporary Research in Management Accounting and Auditing (AC) (3). A broad overview of classical and contemporary empirical research in managerial accounting and auditing including budget and performance review, decision making, information analysis, professional judgement, sampling problems, audit risk, etc. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7836 Seminar: Behavioral Research in Accounting — Individual Behavior (AC) (3). An in-depth examination of the relationship of cognitive psychology, cognitive models of human judgement, decision theory and accounting information. Emphasis is placed upon the human processing of accounting information, the decision value of information, and the development of decision aids or heuristics. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7837 Seminar: Behavioral Research in Accounting — Human Groups and Systems (AC) (3). The multifarious behavioral relationships of groups within the formal and informal organizational structure are examined with respect to performance measurement (efficiency and effectiveness), accountability, planning and control of the development of decision support systems. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7886 Seminar: Empirical Research Methodology and Paradigms in Accounting (AC) (3). Study of research design, methods of data collection and analysis and problems of measurement in accounting research. Empirical research studies in accounting are integrated throughout to illustrate and analyze the structural problems of research design as well as the strengths and weaknesses of various acceptable paradigms. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7887 Research Forum and Workshop (AC) (1). Regularly scheduled workshop at which visiting scholars as well as faculty and doctoral candidates present and evaluate research papers. Candidates are expected to participate in discussions, act as discussants and present their own research for critique. Sessions are held for structuring and "brainstorming" research projects in the formative stages as well as for presenting completed efforts. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7888 Seminar: The Philosophy of Science, Theory Construction, and Verification in Accounting (AC) (3). An examination of knowledge, theories, scientific explanation and prediction as related to the social sciences. Various theories of accounting are critically examined from the standpoint of theory construction and verification in the philosophy of science. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7889 Seminar: Positive Theory Research in Accounting (AC) (3). Construction of theory to explain accounting and auditing practices in an environment of regulation using empirical research findings from a growing body of economic-based research in accounting and finance. Prerequisite: Permission of Doctoral advisor in Accounting.

ACG 7937 Seminar: Special Topics in Accounting Research (AC) (3). Topics vary according to instructor and student interest in problems and issues on the frontier issues of accounting. Prerequisite: Permission of Doctoral advisor in Accounting.

BAN 5652 Savings and Loan Management (FI) (3). Financial management of savings and loan associations and other mortgage lenders, supply and demand of mortgage funds; state and federal regulatory bodies' legal and institutional characteristics related to mortgage markets. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

BUL 4111 Business Law I (AC) (3). Principles of law affecting the legal environment of business; contract law; laws related to sales, torts, agencies and employment; legal relations of government and business.

BUL 4112 Business Law II (AC) (3). Bailments, shipment and sale of goods; suretyship; bankruptcy; commercial paper; real and personal property; insurance; relevant provisions of the uniform commercial code.

BUL 4650 Special Topics in Business Law (AC) (1-6). Intensive study for groups of students of a particular topic, or a limited number of topics, not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

BUL 4905 Independent Study in Business Law (AC) . (1-6). Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Permission of the Director of the School of Accounting

BUL 5105 Legal Environment of Business (AC) (3). Studies the importance of law and legal institutions on commerce workings of administrative law; various aspects of employment legislation and other areas of legal environment of business. Prerequisite: Permission of accounting certificate program advisor.

BUL 5661 Law for Accountants (3). A survey of select topics of direct interest to accounting students, including contracts, sales, agencies, partnerships, corporations. Prerequisite: Permission of Accounting certificate program advisor.

BUL 5662 Accountant's Liability (3). Overview of accountant exposure to private and public sector liability suits, independent in auditor engagements, securities regulations and other state and federal laws of chief concern to accountants. Prerequisite: Permission of Accounting certificate program advisor.

BUL 6124 Survey of Business Law (AC) (3). Graduate level survey of business law which examines the social purposes, functions and forms of the law and the courts, particularly as they relate to business organizations. Prerequisite: Admission to a graduate program in the School of Accounting, or permission of the School Director.

BUL 6631 International Commercial Law (AC) (3). Analysis of legal problems facing th U.S. international and multinational businesses. Topics include the transnational research of economic regulation, international trade and investment, antitrust law, technology transfers, and securities law. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

BUL 6651 Special Topics in Business Law (AC) (1-6). Intensive study for groups of students of a particular topic, or a limited number of topics, not otherwise offered in the curriculum. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

BUL 6906 Independent Study in Business Law (AC) (1-6). Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

CGS 3300 Introduction to Information Systems (DS)(3). Survey major information systems (I.S.) problems in organizations. Brief study of basic computer concepts; I.S. development cycle; relation of I.S. and decision-making; microcomputer database, spreadsheet and wordprocessing business applications. Student microcomputer projects.

COP 7540 File and Database Management Systems (DS) (3). Fundamentals of database concepts and methodologies, including data representation, data modeling, and file organization. Prerequisite: Graduate standing.

ECO 3011 Economics, Man and Society Macro (EC) (3). Relationship of economics to aggregate income. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups. Public issue interpretation in the light of economic theory.

ECO 3021 Economics, Man and Society Micro (EC) (3). Relationship of economics to individual action. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups.

ECO 3431 Applied Macroeconomics (EC) (3). Aggregate economic performance and business conditions analysis. Analysis of the nature and causes of business fluctuation. Economic expansions and stagflation: public policies for economic stability; fiscal policy, monetary policy and incomes policy. Sectoral analysis and macroeconomic forecasting. Prerequisites: ECO 3021 and ECO 3011 or equivalent.

ECO 6433 Financial Modeling and Forecasting (FI) (3). An introduction to Financial Modeling and Forecasting. Emphasis is on computer models and forecasting the financial variables. Prerequisite: Permission of instructor.

ECP 6705 Managerial Economics I (EC) (3). Basic microeconomic concepts as they apply to decision making within the organization; supply and demand; market structure and market behavior in specific industries. Prerequisites: ECO 3021 and ECO 3011.

ECP 6715 Macroeconomic Forecasting for Management (EC) (3). Business macroeconomic concepts as they apply to decision making within the firm. Traditional models of income determination and forecasting analysis. Prerequisite: ECP 6705.

FIN 3100 Personal Financial Management (FI) (3). An introductory course to help individuals achieve their personal financial goals. Topics include personal budgeting, taxes, credit, major expenses, insurance, investments, and retirement planning. For non-Finance only.

FIN 3105 Personal Investment Management (FI) (3). An introductory course to acquaint individuals with basic principles of investments. Topics include the buying and selling of stocks, bonds, and commodities. The operation of markets and planning for risks and returns. For non-Finance only.

FIN 3403 Financial Management (FI) (3). A study of financial decision making in the corporate form of enterprise. An analysis of the sources and uses of funds. Emphasis is placed on working capital management; capital budgeting techniques; short and long term financing; and capital structure and the value of the firm. Prerequisite: ACG 3021 and STA 3132 or equivalent.

FIN 3414 Intermediate Finance (FI) (3). Special topics and case problems in financial management. Prerequisite: FIN 3403 or equivalent.

FIN 3949 Cooperative Education in Finance (FI) (3). Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisite: Approval of Chairperson.

FIN 4100 Estate Analysis and Planning (FI) (3). A personal financial management approach to estate creation, maintenance, and transfer. Uses financial analysis techniques and portfolio approaches to evaluate alternate strategies. Prerequisite: FIN 3403 or equivalent.

FIN 4303 Financial Markets and Institutions (FI) (3). Financial markets and the role of financial intermediaries in these markets. Emphasis will be upon the objectives and policies of financial intermediaries within the constraints of law and regulatory authorities. Prerequisite: FIN 3403 or equivalent.

FIN 4313 Financial History of the United States (FI) (3). Origins of the American financial system. Early American history of financial intermediaries. Evolution in financial legislation, policy, practice, and role of financial intermediaries. Role of the Federal Reserve System in financial markets and influence on financial policy. Prerequisite: FIN 3403 or equivalent.

FIN 4324 Commercial Bank Management (FI) (3). The management of bank assets and liabilities; specialized banking functions; and the role of the commercial bank in financing business. Prerequisite: FIN 3403 or equivalent.

FIN 4345 Credit Analysis and Loan Evaluation (FI) (3). Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/ covenants; subordinations and guarantees; foreign exchange; international transactions and leasing. Prerequisite: FIN 3403.

FIN 4404 Policies for Financial Management (FI) (3). The process of securing and allocating funds within the organization, with emphasis on the relevant financial decision-making and policy aspects. Prerequisite: FIN 3403 or equivalent.

FIN 4419 Capital Budgeting Techniques and Applications (FI) (3). The application of contemporary theory and techniques to the problem of long term resource allocation. A review of capital budgeting techniques and the implications the investment and management of capital have toward the goal of maximizing the value of the firm. Prerequisite: FIN 3414 or equivalent.

FIN 4461 Financial Statement Analysis (FI) (3). This course explores methods of deriving information from financial statements, including both published documents and privately prepared reports, that would be of interest to lenders and investors. Extensive use is made of computer assisted financial planning forecasting models. Prerequisite: FIN 3403.

FIN 4502 Securities Analysis (FI) (3). The examination of the determinants of the values of common and preferred stocks, bonds, and warrants. The timing of security purchases and sales and an introduction to portfolio construction techniques. Prerequisite: FIN 3414 and QMB 3150.

FIN 4503 Futures Markets (FI) (3). This course covers the institutional, speculative, and hedging concepts associated with futures markets. Individual and institutional uses of these markets are examined, with the emphasis on the risk-return aspects of the futures and cash markets. Prerequisites: FIN 3414 or FIN 4502 or FIN 4303.

FIN 4504 Portfolio Analysis and Management (FI) (3). Financial theories will be applied to the construction of portfolios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisite: Fin 4502 or equivalent.

FIN 4611 International Financial Management (FI,MA) (3). Capital budgeting operational analysis and financial decisions in the multinational context. Working capital management and intrafirm fund transfers. Measurement and evaluation of the risk of internationally diversified assets. Prerequisite: FIN 3403 or equivalent.

FIN 4612 International Capital Markets (FI, MA) (3). The world's major non-U.S. stock exchanges; international diversification and the international capital asset pricing model; foreign exchange markets and Euro-currency markets. Prerequisite: One of the following courses: FIN 4303, FIN 4502, FIN 4503, or FIN 4611.

FIN 4613 International Trade Financing Techniques (FI, MA) (3). Alternative methods of financing exports and associated risks. Flexibility and adaptability of letters of credit to special transactions. Types of financial arrangements available to importers and bank considerations in the extension of credit. Role and importance of governmental and quasi-governmental organizations such as the Export-Import Bank, Foreign Credit Insurance Association (FCIA), Overseas Private Investment Corporation (OPIC), and Private Export Funding Corporation (PEFCO). Prerequisite: FIN 3403.

FIN 4621 Risk Analysis in International Lending (FI, MA) (3). Analyzing foreign loan requests and evaluating risk. Measuring and managing country exposure. Role of regulatory authorities in promoting diversification of international credits. Maximizing long-run profitability to the international loan portfolio taking funding options into consideration. Prerequisite: One of the following \ FIN 4303, FIN 4502, FIN 4503, or FIN 4611.

FIN 4627 International Banking (FI) (3). Introductory survey of issues that deal with international aspects of banking. The course provides an overview of the structure and operation of the international banking function, the services offered, supporting documentation, and measures to improve the efficiency and effectiveness of the international banking organization. The purpose of the course is to acquaint the students with the daily activities in international banking. Prerequisite: FIN 4324 or permission of instructor.

FIN 4713 Financial Policies for Not-For-Profit Organizations (FI) (3). Financial processes relevant to governmental and other not-for-profit organizations. Emphasis is on legal, political, and market constraints on securing, managing, and expending funds. Prerequisite: FIN 3403 or equivalent.

FIN 4904 Independent Study in Finance (FI) (1-6). Individual conferences, supervised readings, reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

FIN 4934 Special Topics in Finance (FI) (1-3). For groups of students who desire an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

FIN 4941 Finance Internship (FI) (1-3). Full-time supervised work in a selected bank or other organization in the area of finance. Prerequisites: At least twelve hours of finance, consent of instructor, and department chairperson.

FIN 4949 Cooperative Education in Finance (FI) (3). Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisite: Approval of Chairperson.

FIN 5314 Working Capital Management (FI) (3). Intermediate theories and techniques of cash, accounts receivable, inventory, and accounts payable management. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

FIN 5473 Small Business Finance (FI) (3). The financial markets, financial instruments, and managerial policies and techniques available to potential and existing entrepreneurs and owner/managers. Emphasis will be upon analysis of areas of opportunity for small business: analysis of financing alternatives; and analysis of profitability. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

FIN 5495 Leasing and Mergers (FI) (3). Discussion-oriented course; will provide an analytical foundation to corporate development, strategies, and resource allocation decisions. Merger activity and leasing decisions will be viewed as strategic decisions by the firm to enable them to achieve corporate objectives. Prerequisite: FIN 3403 or FIN 6428, or equivalent.

FIN 5515 Options Markets (FI) (3). An examination of the risk-return structure of options on stocks, indexes, debt, and futures. An examination of the structure of these markets and strategies for their use in portfolios. Corequisite: FIN 4502 or FIN 6428.

FIN 6246 Financial Markets and Institutions (FI) (3). Analysis of the characteristics and efficiency of the money markets and capital markets. Types of money market and capital market instruments, and the role of financial institutions in these markets.

FIN 6315 Commercial Banking (FI) (3). The objectives, constraints, and policies applicable to the management of commercial banks. Emphasis will be given to asset and liability management, marketing of services and other banking functions.

FIN 6316 Management of Non-Bank Financial Institutions (FI) (3). The objectives, constraints, and policies applicable to the management of non-bank financial institutions, savings and loans associations, credit unions, REITs, and insurance, investment and finance companies.

FIN 6325 Current Issues in Commercial Banking (FI) (3). Main policy issues in commercial banking and the role of regulatory authorities. Presentation includes bank mergers and holding companies; national bank branching; and the present structure and prospects of the financial sector. Prerequisite: FIN 6315 or equivalent.

FIN 6346 Credit Analysis (FI) (3). This course examines how the accounting framework is integrated with tools and techniques for the analysis and interpretation of financial statements. Evaluation of risk in domestic and foreign loans and the pricing of credit facilities. Prerequisite: FIN 6428.

FIN 6426 Financial Management Policies (FI) (3). The selection and management of current and permanent assets to achieve corporate objectives. The selection and management of alternative sources of funds to obtain the optimal capital structure. Prerequisite: FIN 6428 or equivalent.

FIN 6428 Financial Management (FI) (3). In-depth examination of asset, liability and capital structure management, with emphasis on capital budgeting techniques; risk evaluation; working capital management; and methods of short-term, intermediate and long-term financing. Prerequisite: ACG 6005 or equivalent.

FIN 6436 Capital Budgeting and Long Term Resource Allocation (FI) (3). The theory of capital allocation at the level of the firm, and empirical findings. Decision models and their application. The pattern of capital expenditure of industries and of the economy as a whole. Investment determinants. Prerequisite: FIN 6428 or equivalent.

FIN 6456 Quantitative Methods in Financial Analysis (FI) (3). The applications of computer techniques to financial management of manufacturing firms and financial institutions. Prerequisite: FIN 6428 or equivalent.

FIN 6508 Financial Futures and Fixed Income Investments (FI) (3). An examination of the structure, uses, and strategies associated with financial futures markets. Hedging, speculative activity, and other risk-return procedures are discussed. Prerequisite: FIN 6428 or equivalent.

FIN 6516 Securities Analysis (FI) (3). An analysis of contemporary securities markets and their operations. The determinants of the risk-reward structure of equity and debt securities. Prerequisite: FIN 6428 or equivalent.

FIN 6525 Portfolio Management (FI) (3). Financial theories will be applied to the construction of portfolios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisite: FIN 6516 or equivalent.

FIN 6625 International Bank Management (FI, MA) (3). Management of the international banking function; setting goals and developing strategies, establishing an organizational structure and managing operations. International banking services. Foreign lending, risks, restraints, and portfolio considerations. International banking trends and implications for regulation.

FIN 6626 International Bank Lending Policies and Practices (FI, MA) (3). Organization of the lending function and examination of the basic types of international lending: trade financing, loans or placements to foreign banks, loans to governments and official institutions, and loans to businesses. Syndicated bank loans. Documentation and legal considerations in foreign lending. Assessing and managing risk in the international loan portfolio.

FIN 6636 International Finance (FI, MA) (3). A comparative study of the institutional characteristics and internal efficiency of developed and underdeveloped capital markets. The relationships between world and capital markets and prospects for integration. The role of multilateral institutions, multinational corporations, states, and the structure of trade in the international short and long term capital flows. The development of financial centers. Prerequisites: FIN 6428 or equivalent.

FIN 6716 Financial Management of Governmental Organizations (FI) (3). The budgetary process of identifying, justifying, and allocating funds. The securing of funds in the market and the efficient allocation of funds.

FIN 6806 The Theory of Finance (FI) (3). The study of the development of the theory of finance and its implications for the financial decisions made by the manager of business firms. Topics include: utility theory; capital budgeting; portfolio theory; capital market equilibrium; multi-period valuation; and the cost of capital. Financial decision making is explored under both certainty and uncertainty and within the context of both perfect and imperfect markets. Prerequisite: FIN 6428 or equivalent.

FIN 6906 Independent Study in Finance (FI) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

FIN 6915 Master's Project in Finance (FI) (1-6). An individualized research project and report, which may include field experience with a firm or agency; library research; computer programming; or project development. The course should be taken during the last half of the student's graduate program. Consent of faculty tutor and Department Chairperson required.

FIN 6936 Special Topics in Finance (FI) (1-3). For groups of students who desire intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

FIN 7507 Seminar in Futures Markets (FI) (3). A comprehensive examination of the literature in futures markets. Emphasizes the structure and pricing of futures, and risk-management via hedging and arbitrage. Prerequisite: Permission of instructor.

FIN 7528 Seminar in Investments (FI) (3). Examines analysis and measurement problems of investments. Includes the application of statistical techniques, current theoretical issues and empirical literature. Prerequisite: Permission of instructor.

FIN 7606 International Corporate Finance (FI) (3). The study of topics of research interest to international financial decisions. Topics include foreign exchange risk, international financial markets, and foreign exchange market efficiency. Prerequisite: Permission of instructor.

FIN 7807 Seminar in Corporate Finance (FI) (3). Familiarizes students with recent developments in finance theory. Includes such topics as the influence of leverage, uncertainty and the cost of capital, agency theory and related topics. Prerequisite: Permission of instructor.

FIN 7808 Financial Theory I (FI) (3). This course focuses on the theory of financial decision-making under certainty and risk. Includes investment under uncertainty, capital structure, dividend, asset valuation, and options pricing. Prerequisite: Permission of instructor.

FIN 7809 Financial Theory II (FI) (3). This course focuses on the theory of financial decision-making under certainty and risk. Includes investment under uncertainty, capital structure, dividend, asset valuation, and options pricing. Prerequisite: Permission of instructor.

FIN 7810 Financial Theory III (FI) (3). This sequel to Financial Theory I and II focuses in on microfinance. Discusses issues primarily in corporate finance such as effects of taxation, agency theory, and signalling theory. Prerequisite: Permission of instructor.

FIN 7811 Seminar in Financial Markets and Institutions (FI) (3). Examines recent developments in economic and financial theories as applied to topics such as the structure of financial markets and the economics of information and financial institutions. Prerequisite: Permission of instructor.

FIN 7812 Seminar in Options and Contingent Claims (FI) (3). An examination of the theories of option valuation and arbitrage pricing, and their applications to security analysis, portfolio management and financial instrument valuation. Prerequisite: Permission of instructor.

FIN 7816 Seminar in Portfolio Theory (FI) (3). Examines investment and portfolio theory, with emphasis on the historical development of the literature in this area and the recent analytical and empirical work. Prerequisite: Permission of instructor.

FIN 7818 Foundations in Financial Models (FI) (3). Introduction to mathematical and economic models underlying the development of modern finance theory. Includes discrete and continuous time models in finance using stochastic calculus. Prerequisite: Permission of instructor.

FIN 7855 Financial Economics I (FI) (3). An advance doctoral course covering selected advanced topics in Microeconomic foundations and other topics related to business. Emphasis will be on economics of uncertainty, agency problems, information and signalling. Prerequisite: ECO 7115 or Permission of instructor.

FIN 7856 Financial Economics II (FI) (3). An advanced doctoral course covering selected advanced topics in the theory of macrofinance. Emphasis will be on financial intermediation. Prerequisite: ECO 7206 or Permission of instructor.

GEB 6405 Business and the Legal Environment (BA) (3). A study of the economic and legal environments of organizations with attention to their ethical, political, and social contexts.

GEB 6716 Competitive Strategy (FI) (3). Provision of tools for managerial decision-making in a variety of competitive environments including demand analysis, short \ and long-run costs of production, demand for factors, market structure and competitive strategy.

GEB 7916 Doctoral Research Project in Business (BA) (15). Intensive research project conducted after the first tier of coursework is complete. Conducted on an individual basis under the supervision of a faculty member. Prerequisite: Graduate standing.

GEB 7936 Doctoral Seminar in Business Administration (BA) (1). Weekly informal seminars to discuss current issues, educational approaches, and career management for Ph.D. students in Business Administration.

GEB 7980 Doctoral Dissertation in Business Administration (BA) (3-15). Original research that is supervised by a faculty committee and defended openly before the university committee. Prerequisite: Admission to Candidacy.

ISM 4113 Systems Analysis and Design (DS) (3). Topics include: information systems concepts; the structure, design, and development of the data base; and techniques and procedures used in the analysis and design of systems projects. Prerequisite: CGS 3403, and either CGS 3403 or COP 3120.

ISM 4151 Systems Management (DS) (3). An in-depth, case-oriented, study of the problems encountered in the management of systems projects. Analyst-user conflicts, communication problems within the systems department, computer evaluation and selection techniques, computer negotiations and contracts, and project management are covered in detail. Where appropriate, field study investigating a topical area will be carried out by each student. Prerequisite: ISM 4210.

ISM 4210 Data Base Applications (DS) (3). Application of the data base technology and concepts to organization problems. Includes DBMS components; hierarchic, network and relational approaches to DBMS design. Hands on experience with a DBMS. Prerequisite: ISM 4113. Cannot be taken for credit by students who have had COP 5540.

ISM 4340 Organizational Impacts of Information Systems (DS) (3). Investigation of the human and organizational factors relevant to design and implementation of information systems in complex organizations. Prerequisites: MAN 3025 and CGS 3403.

ISM 6045 Current Economic and Social Implications of Information Systems (DS) (3). Effects and implications of socio-economic factors in the operation of information systems and interdependence with the legal and international business environment. Privacy and fraud; computer system purchase and lease contracts; economics of system design, selection and operation; electronic fund transfers and mail; international considerations.

ISM 6106 Systems Analysis (DS) (3). A study of the systems approach to problem solving as it applies to any area of specialization. Consideration of the problems in determining system objectives; identifying system boundaries and constraints; marshalling resources for achieving system objectives; analyzing the sub-components of the system and their respective objectives; and managing the system.

ISM 6155 Information Systems Analysis and Design (DS) (3). Concepts and methods used in the analysis and design of MIS. Feasibility study, system flow charting, data requirements analysis, data design, user friendly systems design. Systems design project. Prerequisite: ISM 6205

ISM 6205 Data Structures and File Processing in Business (DS) (3). This course deals with major levels of data organization, data base management, hierarchic and associative structures, file maintenance, and privacy and security measures and safeguards. Prerequisite: MAN 6830 or equivalent.

ISM 6305 Information Systems Planning (DS) (3). An in-depth systems concepts, as they apply to information systems in organizations. Consideration of planning for systems development and its accomplishment through the phases of the life cycle, and of the overall management of the information systems function.

ISM 6357 Computer Administration (DS) (3). The theory and computer management. Topics include selection, training, job and performance evaluation, and incentive schemes as they relate to key positions of systems analysis, programming, data preparation and entry, and project management. Special attention is given to human resources management and development at various levels within the EDP department.

ISM 6405 Decision Support Systems (DS) (3). Concept of decision support is examined and types of applied decision support systems in business are surveyed. Prerequisites: MAN 6569, 6830, 6837 or equivalent.

ISM 6455 Microcomputer Applications in Business (DS) (3). Fundamentals and comparison of contemporary microcomputers. Extensive usage of available software for making business decisions. Emphasis on small business applications and cases. Student projects. Prerequisites: Computer programming proficiency, MAN 4504 and CGS 3403 or MAN 6501 and 6830.

ISM 6930 Special Topics in Management Information Systems (DS) (1-6). To study the recent developments in the MIS field not otherwise offered in the curriculum, such as office automation, computer graphics, etc. Prerequisites: Advanced standing and department chairman approval.

ISM 7126 Systems Analysis and Design (DS) (3). The process of analyzing information requirements and the design and implementation of software systems. Emphasis on the theoretical foundations of different systems development techniques.

ISM 7083 Deterministic Decision Models (DS) (3). This course deals with the optimal decision making and modeling of deterministic systems that originate from real life. These applications, which occur in government, business, engineering, economics, and the natural and social sciences, are largely characterized by the need to allocate limited resources.

ISM 7087 Probalistic Decision Models (DS) (3). This course deals with the optimal decision making and modeling of probalistic systems that originate from real life. These applications, which occur in government, business, engineering, economics, and the natural and social sciences, are largely characterized by the need to allocate limited resources.

ISM 7152 Seminar on System Implementation (DS) (3). Theory and research on the implementation of information systems in organizational settings. Theories of technological innovation and political action applied in the design and development of systems within organizations.

ISM 7306 Seminar on Managing Information Resources (DS) (3). Theory and research on the managerial viewpoint on information processing functions within an organization. Relationship of information management to strategic planning and other business functions.

ISM 7345 Organizational Impacts of Information Systems (DS) (3). Analysis of theory and research on the impacts of information systems on human behavior in organizations and upon organizational design.

ISM 7406 Decision Support Systems (DS) (3). Theory and research on the design of decision aids. Integrating models and data with a technological delivery system that supports unstructured problem-solving by executive.

MAN 3025 Organization and Management (MA) (3). An analysis organizations and the management processes of planning, organizing, directing, and controlling in the context of socio-technical systems. Individual, group, intergroup, and organizational responses to various environments and technologies are studied, as are pertinent techniques of manpower management.

MAN 3503 Managerial Decision Making (DS) (3). This course concentrates on practical decision problems for the manager in an organization. Topics include decision-making theory, linear programming and extensions, Markov Chains, queuing, simulation, and decision support systems. Use of computer packages. Prerequisites: College Algebra, STA 3132 or the equivalent, and QMB 3150.

MAN 3602 International Business (MA) (3). Introductory analysis of the business system and management decision-making in the international operation of enterprise. Special emphasis given to international trade and investment; foreign exchange; financial markets; political and cultural interactions between host societies and multinational enterprise. Prerequisite: ECO 3432.

MAN 3701 Business and Society (ME) (3). An examination of place and role of business in contemporary society. The interaction between business and its economic, legal, political, social, and international environments is discussed and analyzed in detail. Among topics which may be covered are the development and current structure of social systems, as itemized above, which set forth the parameters in which business operates. That is, government legislation and regulation, constitutional law, political and cultural limitations, and other topics.

MAN 3949 Cooperative Education Management I (MA) (1-3). A special program enabling management majors to work in jobs significantly related to their major area and career goals. Specific placement must be approved by the Department Chairperson and faculty advisor prior to enrollment. Prerequisite: qualification for Cooperative Education Program.

MAN 4064 Dilemmas of Responsibility in Business Management (MA) (3). The use of interdisciplinary concepts and tools to define and understand the moral and ethical dilemmas involved in business and corporate spheres of activity. Specifically attended to are issues such as pollution, consumer affairs, and quality of public facilities.

MAN 4102 Women in Management of Business Organizations (MA) (3). This course is intended for students interested in the present and future status of female managers. It will focus on the history of women in professions; the socio-economic status of women in business; educational factors, sex roles and the informal organization; relevant legal requirements; the development of managerial climates for effective performance; and strategies for changing organizations.

MAN 4120 Intergroup Relations in Organization (MA) (3). A study of the psychological and sociological dimensions of intergroup relations. Attention to the problems experienced by subgroups in large and small organizations, with particular reference to ethnic, racial, and sub-cultural groups. The roles and responsibilities of management in the constructive resolution and utilization of intergroup conflict in organizations.

MAN 4142 Managerial Decision Styles (MA) (3). An experiential, theoretical, and applied investigation of personal decision styles and their relation to management and human effectiveness. Focus upon analytic and intuitive styles of thinking.

MAN 4151 Behavioral Science in Management (MA) (3). An analysis of selected concepts in behavioral science, their interaction and application to management. Topics include perception, motivation, and group behavior.

MAN 4201 Organization Theory (MA) (3). A comparative analysis of various theories of organization, (including the classical, biological, economic, and Cyert-March models) and of their treatment of fundamental structure; conflict, communications; group and individual behavior; and decision-making. Primary emphasis on developing an integrated philosophy of organization and management. Prerequisite: MAN 3025 or equivalent.

MAN 4301 Personnel Management (MA) (3). Attention is focused on the theory and practice of modern personnel management as related to other management functions. Topics include: selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resource management and development at various organizational levels.

MAN 4320 Personnel Recruitment and Selection (MA) (3). In-depth study of the personnel staffing function. Includes an analysis of objectives, techniques, and procedures for forecasting manpower needs, recruiting candidates, and selecting employees.

MAN 4322 Personnel Information Systems (MA) (3). A survey of personnel reporting requirements; assessment of information needs; manpower planning; and development of integrated personnel systems. Prerequisites: CGS 3403 and MAN 4301.

MAN 4330 Wage and Salary Administration (MA) (3). Presents the theories and techniques used by management in the areas of work measurement, wage incentives, and job evaluation.

MAN 4401 Industrial Relations (MA) (3). Introduction to labor/management relationship in the United States. Attention to the development of unionism as an American institution, government regulations, and collective bargaining in private and public sectors. A negotiation simulation generally is integrated with classroom work.

MAN 4410 Labor-Management Topics (MA) (DS) (3). Examination of current issues and problems facing unions and management, with emphasis on unfair labor practices, contract administration, and arbitration. Students should complete MAN 4401 before taking this course.

MAN 4584 Productivity Management (DS) (3). Method and cases to measure, evaluate, plan and improve productivity in business and service organizations. Prerequisite: Senior standing in the College.

MAN 4504 Operations Management (DS) (3). Concepts in design, analysis, and control of operating systems. Facility location and layout, work standards, maintenance, quality control, MRP, planning and scheduling applied to production and service systems. Prerequisites: MAN 3503 and QMB 3150.

MAN 4523 Production Information Systems (DS) (3). A study of the special problems associated with the development of information systems capable of supporting the production function of an organization. Review of information systems approaches to inventory control and work processing management. Prerequisites: CGS 3403 and MAN 4504, or consent of instructor.

MAN 4600 International Management (FI, MA) (3). Introductory survey of management issues that confront the multinational enterprise. At least one class session is devoted to each of the following topics: review of basic trade theory; tariffs and trade barriers; organizational transfer, foreign exchange; institutions affecting the multinational manager (such as IMF, IDB, Ex-in Bank, EEC, IBRD), international financial management issues in multinational accounting; personnel management, comparative business customs and behavioral issues; export import procedures; conflicts with national interests. Prerequisite: MAN 3602.

MAN 4610 International and Comparative Industrial Relations (3). (FI, MA) (3). Examines selected industrial relations systems of Western Europe, Asia and the Americas, with special emphasis on differences among systems and the reasons such differences exist. The industrial relations significance of the multinational enterprise and management problems associated with operations in diverse systems, are analyzed.

MAN 4613 International Risk Assessment (MA) (3). Introduces the types of risk confronting businesses operating internationally. Critiques specific techniques used to assess risk and relates the results to management decision making. Prerequisite: MAN 3602.

MAN 4629 International Business Internship (MA) (3). Supervised work in a selected organization in the area of international business. Prerequisite: Consent of instructor, department chairperson; and MAN 3602 and MAN 4600.

MAN 4633 Strategic Management in the MNC (MA) (3). Study of the concept and process of MNC strategy. Involves considering the competitive and political structure of the global market, logic of the multinational enterprise, and nature organizations. Prerequisite: MAN 3602.

MAN 4671 Special Topics in International Business (MA) (3). For groups of students who wish to study intensively a particular topic, or a limited number of topics, in international business, not offered elsewhere in the curriculum. Prerequisites: Approval of the faculty advisor, Director, and Dean.

MAN 4690 Independent Study in International Business (MA) (3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Assignment of faculty tutor and written permission of Director and Dean.

MAN 4711 Social Responsibility and Social Accounting (ME) (3). The sources of the conception of corporate social responsibility. An examination of the classical doctrines as well as new approaches to the conception of the corporation as a citizen. A portion of the course will be devoted to a discussion of social accountability and social accounting as a specific problem in corporate input. Prerequisite: MAN 3701 or consent of Instructor.

MAN 4722 Policy Analysis (MA) (3). The use of cases, guest and gaming to integrate analysis and measurement tools, functional areas, and public policy issues. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Prerequisite: Completion of all core requirements. Must be taken in last academic semester of senior year.

MAN 4731 Modern Business History (ME) (3). An examination of the history of the corporation in the United States since the Civil War, up to, and including, the development of the multinational corporation. An examination of the social and economic forces operative in the development of the corporate form. A full exploration of the current power of the corporate form and legal and other, efforts to limit this power. Prerequisite: MAN 3701 or consent of the Instructor.

MAN 4741 Business Environment and Policy Formation (ME) (3). A course studying the conceptual and environmental forces which establish the framework of business strategy and tactical decision. A critical analysis of conceptual processes which can limit the executive's capacity to respond to change in the total and in the business environment. Prerequisite: MAN 3701 or consent of Instructor.

MAN 4742 Business and the Environment (ME) (3). A course on the effect of industrialization and technological change on the physical environment. An examination of the current legal, economic and political consequences of pollution and environmental damage, and the abatement of these factors. Prerequisite: MAN 3701 or consent of Instructor.

MAN 4802 Small Business Management (MA) (3). The organization and operation of the small business: accounting, finance, production, and marketing subsystems. The use of analytical approach. Problems of manpower management and information flow. Possible use of EDP, case studies.

MAN 4905 Independent Study in Management (MA) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required. P/F only.

MAN 4930 Special Topics in Management (MA) (1-6). For students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson, and Dean required. Grading option.

MAN 4949 Cooperative Education-Management II (MA) (1-3). Continuation of MAN 3949. Prerequisites: MAN 3949 and qualification for Cooperative Education Program.

MAN 5123 Human Interaction I: Personal Growth Laboratory (MA) (3). Experience designed to increase awareness of personal social impact, and sensitivity to the feelings of others; to improve interpersonal communication, and increase understanding of the change-learning process. Study and analysis of class-group participation as well as other functional social groups.

MAN 5524 Advanced Production Management (DS) (3). More advanced methods in master planning, forecasting, capacity management, production activity scheduling/control, MRP and inventory management. This course has a professional orientation similar to the APICS certification guidelines. Prerequisite: MAN 4504 or MAN 6501, or Department Chairperson's approval.

MAN 5930 Seminar in Personnel Management (MA) (3). Overview and examination of the various aspects of the personnel management function.

MAN 6121 Interpersonal Behavior and Analysis (MA) (3). A human interaction-human relations training laboratory, designed to increase both self-awareness and understanding of behavior dynamics in groups. Course is intended to enable students to broaden their conceptual understanding of human interpersonal communications and conflict.

MAN 6124 Human Interaction II: Organizational Consultation (MA) (3). Theories and approaches to organization development and change, with a particular focus on public schools and organizations. Supervised laboratory on systematic consultation and action skills, including schools and organizations. Supervised laboratory on systematic consultation and action skills, including method of assessment (survey feedback, milling, confrontation meetings, systems analysis); agenda-setting; feedbacks; coaching; third-party consultation for conflict management; and team training. Prerequisite: MAN 5123.

MAN 6145 Decision Styles and Managerial Effectiveness (MA) (3). An experiential, theoretical, and applied investigation of personal decision styles and their relation to management and human effectiveness. Focus upon analytic and intuitive styles of thinking.

MAN 6204 Organization and Management Theory (MA) (3). Analysis and design of the structure and process of complex organizations. Effects of task uncertainty, growth, power, goals, and information technology on organization structure and control.

MAN 6245 Organizational Behavior (MA) (3). Individual course in interpersonal, and small group behavior in complex organizations. Focus on behavior, its causes, and management interventions to improve organizational effectiveness. Research methods to study organizational behavior.

MAN 6265 Group Processes in Organizations (MA) (3). The social and psychological processes of organizational functioning. The roles played by small groups in organizational settings.

MAN 6295 Conflict in Organizations (MA) (3). A critical design of examination of the role and impact of interpersonal and intergroup conflict in organizations. Models as approaches to utilizing and resolving conflict toward constructive personal and organization ends will be emphasized.

MAN 6311 Advanced Personnel Management (MA) (3). Attention is focused on the theory and practice of modern personnel management, as related to other management functions. Topics include selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resources management and development at various organizational levels.

MAN 6321 Personnel Selection and Placement (MA) (3). Individual differences and their measurement in personnel selection and job placement. Job design and redesign.

MAN 6331 Compensation Administration (MA) (3). An in-depth analysis of wages and salary administration, including such topics as job evaluation; wage incentive systems; and work sampling.

MAN 6351 Personnel Training and Development (MA) (3). Determining training needs. Training methods. The training staff. Supervisor development. Equal Employment Opportunity management.

MAN 6405 Labor Relations (MA) (3). Examines the collective bargaining system in the United States from the viewpoint of the practitioner. Various aspects of the environment, structure, processes, issues and impact of collective bargaining are considered. Special attention is given to the negotiation and administration of agreements.

MAN 6411 Collective Bargaining Topics (MA) (3). An advanced labor relations for students with some background who desire more depth than that provided in introductory courses. Topics of contemporary interest, such as public sector collective negotiations, are treated at length.

MAN 6501 Operations Management (DS) (3). This course covers analysis, design, and operations of organizational systems. The systems approach is used to provide a framework or general model of analysis, to which specific concepts, quantitative techniques, and tools can be related. The material presented has application to any organization of people and machines, including hospitals, governmental agencies, service organizations, and industrial concerns. Prerequisite: MAN 6569 or equivalent.

MAN 6529 Seminar in Production Control Systems (DS) (3). The control systems for production operations automation and its impact on organizations. Integrated operational-simulation approach. Group and individual projects.

MAN 6559 Seminar in Management Science (DS) (3). New topics application areas will be explored. Lectures will relate to the latest advances in the theory and application of management science. Prerequisite: Instructor's approval.

MAN 6569 Managerial Decision-Making (DS) (3). This course will investigate and analyze the decision-making problems that managers face in business, volunteer organizations, government, and the public sector. Emphasis will be placed on providing a variety of decision-making experiences for the student. Prerequisite: QMB 6603 or equivalent.

6585 Productivity Management Seminar (DS) (3). Analysis of productivity in manufacturing and service organizations and methodology for productivity improvement. Extensive cases, projects, tours, and guests speakers. Prerequisite: Graduate students (or CBA certificate students).

MAN 6601 International Management (FI, MA) (3). Graduate semiar focusing on management issues confronting the multinational enterprise. Includes basic trade theory; tariffs and trade barriers; organizational transfer, foreign exchange; international financial management; export-import procedures; comparative business customs; personnel management; and institutions affecting the multinational manager.

MAN 6603 Problems in Comparative Management (FI, MA) (3). Discussion of literature, readings, and cases, aimed at underscoring the differences and similarities in management behavior in different countries and cultures. General instruction in obtaining and utilizing comparative data on management differences.

MAN 6606 International Business Environment (ME, MA) (3). A macro-examination of economic, political, and cultural variables affecting the organization. Emphasis will be placed on social indications and societal forecasting of change; organizational responses to change; and the nature and rate of change in different societies.

MAN 6608 International Business (MA) (3). International practice of variables as they affect managers. Theoretical constructs and their application to specific problems in international business.

MAN 6615 International Labor-Management Relations (FI, MA) (3). Comparative analysis of selected industrial relations systems and impact on multinational firms and international labor movements. Emphasis on empirical models and management-oriented case studies.

MAN 6635 International Business Policy (FI, MA) (3). An analysis of corporate strategies in a rapidly developing and changing world environment. Emphasis will be placed on forecasting, planning, and contingency strategies. The course is taught by case method and stresses the environmental and institutional constraints on decision making within the organization. Corporate executives are invited to attend whenever possible. Prerequisites: ACG 6005, MAN 6245, FIN 6428, and MAR 6716.

MAN 6675 Special Topics in International Business (MA) (3). For groups of students who wish to study intensively a particular topic, or a limited number of topics, in international business, not offered elsewhere in the curriculum. Prerequisites: Approval of the faculty advisor, Director, and Dean.

MAN 6679 Master's Project in International Business (MA) (DS) (3). An individual research project on an international business problem, which may include field work (including internship), library research, computer modeling, or the use of an approved research methodology. Prerequisites: Assignment of faculty advisor and permission of Director.

MAN 6695 Independent Study in Business (MA) (3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Assignment of faculty tutor and written permission of Director and Dean.

MAN 6715 Business Environment and Public Policy (ME). An examination of the economic, political, social and moral context in which management decisions are made. The focus is on the public policy environment of business, whereby community direction is transformed into corporate behavior.

MAN 6717 Corporate Negotiations (MA) (3). An examination and analysis of corporate negotiation strategies in such areas as collective bargaining, mergers, joint ventures, and with government regulation agencies. The legal environment affecting the negotiated process will be closely scrutinized, as well as internal and external political processes. Prerequisites: ACG 6005, MAN 6245, FIN 6428, MAR 6716, MAN 6606.

MAN 6726 Policy Analysis (MA) (3). The use of cases, guest lectures, and gaming to integrate the analysis and measurement tools, the functional areas and public policy issues. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Should be taken in the last semester of master's program.

MAN 6830 Organization Information Systems (DS) (3). Introduction to information systems and their role in organizations from a user's viewpoint. Survey and application of the basic concepts necessary for understanding information systems. Study of the main activities in the development cycle used to acquire information systems capability. Prerequisite: Completion of the computer programming proficiency requirement.

MAN 6905 Independent Study in Management (MA) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty sponsor, Department Chairman, and Dean required. P/F only.

MAN 6910 Research Methods in Management (MA) (3). Covers the research methods and analytical techniques most widely used in research in human resources and general management. Emphasis is on helping students to become more aware of current techniques and their applications.

MAN 6911 Research in Systems Development (DS) (3). Conduct an individual research project or thesis on a topic in the area of computer personnel, systems analysis and design, or other areas within the framework of the MIS program, subject to the instructor's approval. Prerequisite: ISM 6155.

MAN 6930 Master's Seminar in Management (MA) (1-3). An examination of recent research findings in selected areas of current concern. Emphasis is placed on readings; active discussion; and small, short-term action and research projects. The student may make a preliminary selection of his/her master's thesis or project topic. Prerequisites: Consent of faculty sponsor, Department Chairperson, and Dean.

MAN 6974 Master's Project in Management (MA) (1-6). Each student is required to develop and conduct an individual research project or thesis on a topic of interest. The topic will be chosen in consultation with a faculty member in the College.

MAN 7146 Leadership I (MA) (3). Course identifies leadership theories and research bearing on modern management practice. Behavioral, situational and transformational theories of leadership are emphasized, compared and evaluated.

MAN 7147 Leadership II (MA) (3). Draws on research and case studies for understanding of adaptive leadership in turbulent, uncertain environments. Emphasis on effective management of innovation, entrepreneurial activity and new ventures.

MAN 7155 Fundamentals of Behavioral Research (MA) (3). Analytical tools to conduct systematic research. Methods of data collection in lab, survey and field research. Emphasis on principles of measurement and statistics to interpret/report behavioral data.

MAN 7206 Organizational Analysis (MA) (3). Develops skills in organizational problem-solving through applications of theory and research to actual problems. Emphasis on needs analysis, process consultation, team-building and action research.

MAN 7207 Theories of Organization (MA) (3). Organization functioning from a macro perspective; emphasis on evolution, structure, design and processes of complex systems. Study of communication/information networks, inter-group processes and control strategies.

MAN 7235 Management Philosophy and Strategy (MA) (3). Compares various cross-cultural management philosophies to structure and function of different types of organizations. Emphasis on how to develop and implement a management strategy for maximum productivity in different organizations.

MAN 7275 Organizational Behavior Management (MA) (3). An introduction to the study of human behavior in organizations. Emphasis is given to management of individual and group processes including conflict attitudes, decision making, motivation and stress.

MAN 7305 Human Resource Management (MA) (3). Personnel management topics including personnel selection, performance appraisal, training design, employee development, and compensation administration. Legal and practical issues are emphasized.

MAN 7412 Labor-Management Topics (MA) (3). Presents various aspects of the labor-management relationship to provide a contemporary perspective. Emphasis on structure, processes, strategies and legal issues in collective negotiation and industrial relations.

MAN 7609 Comparative Management (MA) (3). Course focus is cross-cultural management, i.e., how cultural values influence managerial behavior. The problems of cross-cultural communications, leadership, motivation, and decision making are examined. Prerequisites: Admission to Doctoral program and completion of doctoral core.

MAN 7616 Multinational Firm Global Strategy (MA) (3). Overview of the strategic management and international business concepts that frame strategic activity in MNCs. Competitive business strategies in global and multidomestic industries. Prerequisite: Completion of business Ph.D. core.

MAN 7620 International Business Operations I (MA) (3). Examination of the functional management, operations and concerns of international businesses. Emphasizes analysis of problems in managing joint ventures, licensing, barter, and technology transfer. Prerequisites: Admission to Doctoral program and completion of doctoral core.

MAN 7621 International Business Operations II (MA) (3). Focus on political, economic, and national security issues which influence IB operations or strategies. Examines techniques for political and economic risk, assessment and reactions to such influences. Prerequisites: Admission to Doctoral program and completion of doctoral core.

MAN 7640 International Business Research Methods (MA) (3). Overview of IB academic research, emphasizing topics, literature, methods, information sources, applications, problems, and journal characteristics. Prerequisite: Admission to business doctoral program and completion of doctoral "core".

MAN 7718 Analysis of Corporate Policy Methods (MA) (3). Links functional areas of management to provide integrated view of organization and public policy. Emphasis on measurement, analysis and conceptualization of organization as a totality of operations.

MAN 7814 Advanced Management Research (MA) (3). Covers applications of analytical methods in contemporary management research. Emphasis is given to complex research design strategies including multivariate techniques and multidimensional scaling.

MAN 7895 Seminar in Management (MA) (3). Key concepts in management ranging from individual worker styles to business ethics. Emphasis on topics such as men and women in organization, decision making styles, and attribution management.

MAR 3023 Marketing Management (ME) (3) A descriptive study emphasizing the functions and institutions common to marketing systems.

MAR 4103 Personal Selling (ME) (3). The development of effective salesmen/customer relationships is emphasized. Selection, training, and motivation of the sales force, and the relationship between personal selling and the other elements of marketing strategy are analyzed.

MAR 4153 Retailing Management (ME) (3). An examination of the role of retailing in the marketing system. Attention is concentrated on fundamentals for successful retail management. The course emphasizes basic marketing principles and procedures, including merchandising; markup \ markdown ; pricing; stock-turn; and sales and stock planning.

MAR 4154 Cases in Retailing Management (ME) (3). This course treats the retail marketing concentration in terms of up-to-date merchandise management methods. Emphasis is on elements of profit, open-to-buy planning, return on investment, and inventory control. The course delineates the decisions made by retailing managements and reviews their available strategies. Prerequisite: MAR 4153 or consent of instructor.

MAR 4203 Marketing Channels (ME) (3). The course focuses upon institutions, functions, and flows within channels of distribution; and their integration into channels systems. Wholesaling and physical activity are emphasized. Same course as TRA 4203.

MAR 4243 International Marketing (ME, MA) (3). The course studies the information required by marketing managers to assist in satisfying the needs of consumers internationally. Special emphasis will be given to the constraints of the international environment.

MAR 4244 Export Marketing (ME) (3). The course emphasizes practical approaches to export marketing, including marketing strategies by individual firms to serve foreign markets. Operational methods of identifying, establishing, and consolidating export markets are discussed, with particular attention to the needs of the smaller business.

MAR 4303 Advertising Management (ME) (3). The study of advertising in business and society, providing a broad understanding of advertising's social, communicative, and economic purposes. An examination of the types and functions of advertising. Discussion of research, media selection, budget determination, and other elements in the total advertising process.

MAR 4343 Promotional Strategy (ME) (3). The course deals with problems of decision-making in the areas of marketing communication methods, with primary emphasis on advertising.

MAR 4344 Advertising Campaign Management (ME) (3). Strategic approaches to managing advertising campaigns, including selection of approaches; market research; consumer target markets; media; advertisements; development and control of budgets. Prerequisite: MAR 4303 or consent of Instructor.

MAR 4403 Sales Management (ME) (3). Analysis of field sales management with emphasis on the role of personal selling in the marketing mix, building an effective organization, and controlling and evaluating the sales force.

MAR 4503 Consumer Behavior (ME) (3). The course offers an introduction to the analysis of the consumer, as the basis for the development of the marketing mix.

MAR 4613 Marketing Research (ME) (3). An examination of the marketing research process and its role in aiding decision-making. Emphasis is placed on evaluation and utilization of research information in making marketing decisions.

MAR 4703 Current Issues in Marketing I (ME) (3). Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 3 credit hours of independent study in marketing.

MAR 4704 Current Issues in Marketing II (ME) (3). Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 4703.

MAR 4713 Cases in Marketing Management (ME) (3). An analytic approach to the performance to marketing management. The elements of marketing mix as the focus of decision-making in marketing are studied, and the case method of instruction is employed.

MAR 4723 Marketing of Small Business Enterprises (ME) (3). Designed to develop an understanding of the principles and practices which contribute to the successful marketing operation of a small business enterprise, this course deals with marketing policies, techniques, and applications to aid the entrepreneur in this field.

MAR 4753 Marketing Game (ME) (3). Focal point of the course is a computerized marketing management simulation. The course provides an opportunity for the student to participate, as a member of the marketing management team of a firm in competition with other firms.

MAR 4907 Independent Study in Marketing (ME) (1-6). Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required.

MAR 4933 Special Topics in Marketing (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

MAR 4941 Marketing Internship (ME) (1-6). Full-time supervised work in a selected organization. Prerequisites: At least twelve hours in marketing; consent of instructor and Department Chairperson.

MAR 4949 Cooperative Education in Marketing (ME) (3). Open to marketing majors who have been admitted to the Cooperative Education Program, with consent of Chairperson. Full-time supervised work with a participating organization in marketing. Report to the organization and a paper to the Chairperson are required.

MAR 6246 International Marketing (ME, MA) (3). This course discusses the nature and scope of international marketing, and explores problems facing multinational firms and other international marketing organizations, together with strategies for foreign market penetration. Prerequisite: MAR 6716 or permission of instructor.

MAR 6346 Advanced Promotional Strategy (ME) (3). The course focuses on planning, problem-solving, and decision-making, as they apply to promotion programs. Primary emphasis is on advertising, with discussion of the role of promotion in relation to other elements of the marketing program.

MAR 6406 Advanced Sales Management (ME) (3). Analysis of personal selling's roles in marketing strategy using detailed case studies on field sales management, working with channel organization, and planning and controlling sales operations. Prerequisite: MAR 6716.

MAR 6506 Advanced Consumer Behavior (ME) (3). Modern comprehensive models of consumer behavior are utilized as a framework for understanding consumer decision processes.

MAR 6617 Advanced Marketing Research (ME) (3). The role of research in providing information for marketing decision-making, including an examination of the research process and the tools available to the researcher.

MAR 6706 Current Issues in Marketing I (ME) (3). Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 3 credit hours of independent study in marketing.

MAR 6707 Current Issues in Marketing II (ME) (3). Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 6706.

MAR 6716 Marketing Management (ME) (3). A study of analysis and application of theory and problem solving in marketing management. Emphasis will be on the role of marketing in the organization; planning the marketing effort; management of the marketing organization; control of marketing operations; and evaluation of the marketing contribution.

MAR 6717 Advanced Marketing Management (ME) (3). Course emphasis is on application and integration of concepts and tools, through participation in the marketing management of a firm in competition with other firms. The course's focal point is a computerized marketing management simulation.

MAR 6915 Independent Study in Marketing (ME) (1-6). Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required.

MAR 6936 Special Topics in Marketing (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

MAR 7622 Marketing Research Methodology (ME) (3). Philosophy, concepts, methods of marketing research design. Experimental methods, sampling procedures, measurement techniques, other methodological considerations. Prerequisites: Two other courses in marketing research; permission of instructor.

MAR 7623 Advanced Marketing Research Seminar (ME) (3). Special multivariate data analysis techniques, e.g., discriminant, canonical, and conjoint analyses. Field surveys. Use of historical data. Prerequisites: Equivalent of undergraduate course in Marketing Research; permission of instructor.

MAR 7667 Marketing Models (ME) (3). Analytical approaches to strategical and tactical marketing and public policy decisions. Emphasis is on relevant concepts from behavioral sciences as applied to marketing decisions.

MAR 7786 Marketing Theory Seminar (ME) (3). Essential elements of philosophy of science and their use in marketing. Emphasizes the structure of theoretical explanation and interactions of marketing theory and practice.

MAR 7815 Seminar in Foundations of Marketing Thought (ME) (3). Analysis and evaluation of evolution of marketing thought in modern societies, developing as well as developed economies. Considers interdisciplinary relationships, contemporary theoretical insights.

MAR 7875 Sectorial Marketing (MA) (3). In-depth analysis of marketing sectors, focus on unfolding environmental trends/developments. Includes retailing/distribution, advertising/sales promotion, sales management/personal selling, international marketing, marketing logisitc.

MAR 7979 Doctoral Research in Marketing (ME) (3). Research while enrolled for a doctoral degree under the direction of faculty members. Prerequisite: Permission of Department.

QMB 3003 Quantitative Foundations of Business Administration (DS) (3). Elements and extensive applications of the following quantitative tools to Accounting, Finance, Economics, Marketing, Management and Production: Algebra review, sets, combinatorics, matrices, linear and non-linear functions, derivatives and integrals with a view towards optimization. Case studies. Open only to Business Administration majors. Prerequisite: College Algebra.

QMB 3150 Application of Quantitative Methods in Business (DS) (3). Inference and modeling for business decisions under uncertainty. Topics covered include survey sampling, confidence intervals and hypothesis testing for mean(s), variance(s), and proportion(s), chi-square test for independence and goodness of fit, correlation, linear regression, time series, and analysis of variance. Use of computer packages to solve real business problems. Prerequisites: College Algebra and STA 3132 or the equivalent.

QMB 4680 Simulation of Management Systems (DS) (3). Exploration of basic concepts in computer simulation of systems. Application of these concepts to a variety of managerial problems. Discussion of waiting line models, continuous simulation models; heuristic methods; and management games. Presentation of several computer programs and languages for simulation. Exposure to the operation and analysis of some simulation models. Prerequisites: CGS 3300 and MAN 3503.

QMB 4700 Principles of Operations Research I (DS) (3). Application of deterministic operations research models (such as linear and non-linear programming, networks, dynamic programming, and branch and bound techniques) to managerial problems of allocation, planning, and scheduling. Prerequisite: MAN 3503.

QMB 4905 Independent Study In Decision Sciences (DS) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of instructor, Department Chairperson and Dean required. P/F only.

QMB 4930 Special Topics In Decision Sciences (DS) (1-6). For students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of instructor and Department Chairperson required. Grading option.

QMB 6603 Quantitative Methods In Management (DS) (3). Introduction to basic quantitative tools for the analysis of problems arising in the management of organizations, and the application of these tools to real-life problems. Prerequisite: College Algebra and completion of the Computer Programming Proficiency requirement.

QMB 6805 Deterministic Models for Management Analysis (DS) (3). Applications of deterministic models such as linear and nonlinear programming, network analysis (PERT), dynamic programming, and branch and bound algorithms) to managerial problems of allocation, planning, scheduling, investment, and control.

QMB 6845 Simulation of Management Systems (DS) (3). Basic concepts of computer simulation of systems; application of these concepts to a variety of management problems. Industrial dynamics, urban dynamics, and large system simulation. Simulation in economic analysis, heuristic methods, and management games are covered. Prerequisites: MAN 6569 and a Computer Programming Language.

QMB 6855 Stochastic Models for Management Analysis (DS) (3). Applications of probabilistic models (such as queuing, inventory, and renewal) to their managerial problems.

QMB 6875 Stochastic Models for Project Management (DS) (3). Review of deterministic models and principles. Introduction to GERT, critical path methods, criticality index, and resource considerations in stochastic networks. Emphasis on operational decision-making, advanced topics, and individual projects. Students use the computer, and existing programs, to analyze hypothetical project networks, and learn to interpret the results in order to facilitate operational decisions.

QMB 6905 Independent Study In Decision Sciences (DS) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of instructor, Department Chairperson and Dean required. P/F only.

QMB 6935 Seminar In Decision Sciences (DS) (1-3). An examination of recent research findings in selected areas of current concern. Emphasis is placed in readings; active discussion; and small, short-term action and research projects. Consent of instructor required.

QMB 6974 Project In Decision Sciences (DS) (1-6). Each student is required to develop and conduct an individual research project or thesis on a topic of interest. The topic will be chosen in consultation with a faculty member in the College and approved by the Department Chairperson.

REE 4043 Real Estate Analysis (FI) (3). Decision making processes for development, financing, marketing, and management of real estate within the framework of our governmental, economic, legal, and social systems; does not meet course content requirements of Florida real estate Commission for obtaining a real estate license. Prerequisite to all other courses in real estate and regional development.

REE 4104 Appraisal of Real Estate (FI) (3). Valuation and appraisal framework applied to residential and income producing property; role of computers; valuation theory and process as a guide to business decisions.

REE 4204 Real Estate Financial Analysis (FI) (3). Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction and permanent financing; portfolio problems; governmental programs; money and mortgage market analysis; computers and financial models.

REE 4303 Real Estate Investment (FI) (3). Advanced concepts of acquisition, ownership, and disposition of investment property; taxation and tax shelter; cash flow projection; analysis of specific types of investment property; utilization of computers as a decision-making tool; models of real estate investment analysis; case analysis and policy formulation.

REE 4504 Real Estate Management (FI) (3). Theories and techniques of professional management of real estate including such topics as creating a management plan; merchandising space; economics of alternates; market analysis; the maintenance process; owner-tenant manager relations; operating budgets; tax consideration; ethics.

REE 4733 Real Estate Land Planning (FI) (3). Theories of city growth and structure, operations of the real estate market in land allocation; current practices in real estate land planning.

REE 4754 Real Estate and Regional Development Policy (FI) (3). A capstone course in integrating all the aspects of real estate and regional development learned in previous courses, projects, cases, and field trips. Prerequisite: Permission of instructor.

REE 4814 Real Estate Marketing (FI) (3). Techniques of selecting, training, and compensating sales personnel; obtaining and controlling listings; process and methods involved in the selling of real estate; promotion activities; including advertising and public relations; growth problems; professionalism; ethics.

REE 4905 Independent Study In Real Estate (FI) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

REE 4930 Special Topics In Real Estate (FI) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty tutor and Department Chairperson required.

REE 5115 Income Property Appraisal (FI) (3). Valuation and appraisal framework applied to income properties; capitalization; rates and techniques; discounting and compound interest; mortgage-equity analysis. Includes Ellwood analysis; the role of computers; valuation as a guide to business decisions.

REE 6020 Industrial Real Estate I (FI) (3). General overview of industrial real estate, focusing on types of activities; locational requirements; financing techniques; brokerage; government influence; current trends; technological change; characteristics of industrial buildings.

REE 6021 Industrial Real Estate II (FI) (3). Introduction to investment and valuation problems in industrial real estate. Topics include: taxation and investment analysis; discounted cash flow techniques; appraisal framework applied to income properties. A computer will be utilized in approaching the above problems.

REE 6105 Appraisal of Real Estate (FI) (3). Valuation and appraisal framework applied to residential and income producing property; role of computers; valuation theory and process as a guide to business decisions. Prerequisite: REE 4303 or permission of instructor.

REE 6195 Seminar In Real Estate Valuation Theory and Practice (FI) (3). A study of the process of property valuation, utilizing cost, market and income approaches. The role of computers and mass appraisal techniques will also be examined. Prerequisites: Graduate standing and permission of Instructor.

REE 6207 Real Estate Financial Analysis (FI) (3). Financial analysis and structuring of real estate projects; traditional and creative concepts for construction and permanent financing; portfolio decisions; government programs; money and mortgage markets. Prerequisite: REE 6306 or permission of instructor.

REE 6295 Seminar In Real Estate Finance (FI) (3). A study of financial institutions, their methods; and interregional flows of funds in mortgage markets. Further emphasis is placed on national economic policies affecting mortgage markets. Prerequisites: Graduate standing and permission of instructor.

REE 6305 Real Estate Investment (FI) (3). Advanced concepts of acquisition, ownership, and disposition of investment property; taxation; risk and return; cash flow forecasting; financial structuring process; case analysis; strategy formulation. Prerequisite: REE 6306 or permission of instructor.

REE 6306 Real Property Analysis (FI) (3). A study of the decision making processes of real property asset management. Private and public policy issues regarding the housing process and the regulation of the real property business environment. Legal considerations of real property ownership, financing and transfer of interests. Prerequisite: Consent of instructor.

REE 6395 Seminar in Real Estate Investment and Taxation (FI) (3). The techniques of real estate investment analysis, utilizing present value and cash flow approaches. The impact of Federal taxation on real estate investment decisions. Prerequisites: Graduate standing and permission of instructor.

REE 6435 Legal Environment of Real Estate (FI) (3). Legal environment of real property ownership, transfer and brokerage; estates in land; sales contracts; mortgage transactions; titles; conveyances; landlord and tenant; restrictions; zoning; and eminent domain; does not cover Florida Real Estate License Law or licensing regulations of Florida Real Estate Commission; not a license 'prep' course. Prerequisite: REE 4043 or REE 6306 or permission of instructor.

REE 6505 Real Estate Management (FI) (3). Advanced theories and techniques of professional management of real estate; developing a management plan; merchandising space; market analysis; maintenance; operating budgets; fiduciary relationships. Prerequisite: REE 6306 or permission of instructor.

REE 6715 Regional Real Estate Development (FI) (3). Operation of real estate markets in land allocation; land use decision making in real estate; real estate feasibility studies, applied to specific real estate projects. Prerequisite: REE 6306 or permission of instructor.

REE 6734 Real Estate Land Development (FI) (3). Real estate development, acquisition of raw land; zoning; subdivision into sites; provision of utilities and services; financing; merchandising of improved sites. Emphasis on design and development of residential communities.

REE 6736 Real Estate Land Planning (FI) (3). Advanced theories of city growth and structure; operations of the real estate market in land allocation; current practices in real estate land planning. Prerequisite: REE 6306 or permission of instructor.

REE 6755 Real Estate and Regional Development Policy (FI) (3). An advanced capstone course integrating all the aspects of real estate and regional development learned in previous courses, projects, cases, and field trips. Prerequisite: REE 6306 or permission of instructor.

REE 6795 Seminar in Urban Housing Policy Problems (FI) (3). Examination of national housing policies and their formulation; the role of the public and private sectors in regard to housing problems; effectiveness of various housing policies. Prerequisites: Graduate standing and permission of instructor.

REE 6816 Real Estate Marketing (FI) (3). Techniques of selecting, training, and compensating sales personnel; obtaining and controlling listings; creative selling techniques; promotion, advertising, and public relations; growth; ethics. Prerequisite: REE 6306 or permission of instructor.

REE 6825 Industrial Brokerage (FI) (3). Defines distinction between industrial brokerage and general real estate brokerage; role and functions of the industrial broker; industrial brokerage practice. Includes negotiating and leasing; regulations and ethics.

REE 6906 Independent Study in Real Estate (FI) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

REE 6932 Special Topics in Real Estate (FI) (1-6). For groups of students desiring intensive studies of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty tutor and Department Chairperson required.

REE 6935 Seminar in International Real Estate (FI, MA) (3). Current trends and issues affecting real estate on an international level. Topics include; the multinational corporation and its location decisions; foreign taxation; international trade and exchange rates.

REE 6946 Industry Project (FI) (3). Advanced individual or group study of specialized problems in the real estate field. Guidance of study to be provided by real estate faculty. Prerequisite: Permission of advisor.

RMI 3011 Principles of Risk and Insurance (FI) (3). Risk Management, Elements of Risk Theory and Risk Bearing. The Insurance Industry, fundamentals and legal concepts in insurance. Overview of property and liability as well as life insurance policies.

RMI 4085C Introduction to International Insurance (FI) (3). Economic analysis of insurance trade. Business operations. International Insurance Marketing, Underwriting Claims Adjustments and Settlements. International insurance funds flow and regulations. Issues in international insurance.

RMI 4115 Life Insurance (FI) (3). Structure and Purposes of Life Insurance. Types and analysis of life insurance contracts. Elementary life insurance mathematics. Fundamentals of private pensions and group insurance.

RMI 4117 Personal Insurance Planning (FI) (3). Analysis of methods of handling personal risk exposures including insurance coverage alternatives. Integrating life, health and accident, property and liability, profit-sharing; private and governmental insurance and pension programs. Prerequisite: RMI 3011.

RMI 4124 Health Insurance (FI) (3). The Economics of Health Insurance Types of Coverages; Marketing, Underwriting, Claims Adjustment and Administration. Private and Social Insurance programs. Regulations.

RMI 4135 Employee Benefit Plans (FI) (3). The concept of group insurance Marketing, Underwriting Claims Treatment and Administration of Group Policies. Establishment, Funding and Benefits of Private Pensions and Profit Sharing Plans. Prerequisite: RMI 4115.

RMI 4170 Life and Health Insurance (FI) (3). A review of life insurance contracts. Mathematics of Life Insurance. Fundamentals of Health Insurance. Life Insurance Accounting, Reserves, Operations and Investment. Prerequisite: RMI 4115.

RMI 4200 Property and Liability Insurance (FI) (3). Fundamentals and legal environment of Property and Liability Insurance. Major P-L insurance lines including Fire, Marine, Automobile, Worker's Compensation, Homeowners' and Liability; functions of P-L insurers.

RMI 4220 Casualty Insurance (FI) (3). A broad concept of casualty insurance, including a thorough review of basic policies; dailies; underwriting losses; multiple line and comprehensive forms. Subjects covered include personal liability insurance, boiler and machinery insurance, air insurance, inland and ocean marine insurance, workmen's compensation, and surety.

RMI 4292 Property and Liability Insurance Operations (FI) (3). In-depth study of the functions and operations of P-L insurers. Will include Marketing, Underwriting, Rate-making and Claims Functions. Also Loss Control Activities, Administration, Investment, Reinsurance and Regulation. Prerequisite: RMI 4200.

RMI 4305 Risk Management (FI) (3). The Elements of Risk Theory and Risk-Bearing. Risk Identification and Analysis. Methods for handling risks with quantitative analysis of available alternatives including Self-insurance and Captive insurance concepts.

RMI 4405 Insurance Law (FI) (3). Legal environment and essentials of insurance law. Legal and non-legal liabilities. Regulation of insurance in Florida.

RMI 4500 Social Insurance (FI) (3). The History and Economics of Social insurance programs. Definition of the needy. Comparative analysis of social insurance programs for death, occupational and non-occupational disability, old age and unemployment.

RMI 4509 Business Insurance and Estate Planning (FI) (3). Essentials and Analysis of Estate Planning. Minimization and provisions for death transfer costs on estates and business interests.

RMI 4740 Insurance Underwriting and Claims Adjustment (FI) (3). Examination of an underwriter's and rater's functions: Selection of risks, classification and rating. Deductibles, Reinsurances. Claims philosophy and practice, Investigation, Adjustment and Settlements.

RMI 4910 Independent Study In Insurance (FI) (1-6). Supervised study of insurance or insurance related topics, developments, current issues and anticipated trends. Study may be designed to investigate a specialized area or adopt a more general approach. Consent of faculty supervisor, Department Chairperson, and Dean required.

RMI 4935 Special Topics In Insurance (FI) (1-6). Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the Curriculum. Consent of faculty supervisor and Department Chairperson required.

RMI 5175 Life and Health Insurance (FI) (3). A review of life insurance contracts. Mathematics of Life Insurance. Fundamentals of Health Insurance. Life Insurance Accounting, Reserves, Dividend, Non-forfeiture values. Operations and Investment.

RMI 5297 Property and Liability Insurance (FI) (3). Comparative study of the structures and forms of the major property and liability insurance, policies, personal and commercial lines. Analytic determination of the choice of the optimal mode of protection or coverage. Major functions of insurers and regulation.

RMI 6008 Graduate Survey of Insurance (FI) (1-6). Graduate examination of current problems in insurance, including theory, uses of insurance in business organizations; property and liability insurance; life and health insurance.

RMI 6178 Mathematics of Life Insurance (FI) (3). Present Values and Future Values of Lump Sums and Annuities. Mortality Tables Single Premiums, Annual Premiums and Net Level Premiums. Reserves, Nonforfeiture Values and Dividends. Prerequisite: MAC 3233 or equivalent.

RMI 6912 Independent Study In Insurance (FI) (1-6). Supervised study of insurance or insurance related topics, developments, current issues and anticipated trends. Study may be designed to investigate a specialized area or adopt a more general approach. Consent of faculty supervisor, Department Chairperson, and Dean required.

RMI 6936 Special Topics In Insurance (FI) (1-6). Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the Curriculum. Consent of faculty supervisor and Department Chairperson required.

STA 3132 Quantitative Methods for Administration (MS) (3). The use of statistical tools in management; introduction of probability, descriptive statistics, and statistical inference as included.

STA 7137 Statistical Methods In Finance I (FI) (3). Estimation, and testing of various economic and financial models. Emphasis on econometric techniques to deal with various problems of single-equation models and introduction to simultaneous equation. Prerequisite: Instructor's permission.

STA 7138 Statistical Methods In Finance II (FI) (3). Emphasis on econometric techniques and multivariate statistics as applied in finance. Includes simultaneous equation models, multiple discriminant analysis and factor analysis. Prerequisite: Instructor's permission.

TAX 4001 Income Tax Accounting (AC) (3). A survey of federal income taxation with primary emphasis on the taxation of individuals and corporations. Prerequisite: ACG 4111 with grade of 'C' or higher.

TAX 4011 Taxation of Corporations and Partnerships (AC) (3). An in-depth study of income taxation of corporations and partnerships, including tax planning. Prerequisite: TAX 4001, with a grade of 'C' or higher, or equivalent.

TAX 4901 Independent Study In Taxation (AC) (1-3). Individual conferences, supervised readings, and reports on personal investigations. Prerequisite: Permission of the Director of the School of Accounting.

TAX 4931 Special Topics In Taxation (AC) (1-3). For groups of students wishing an intensive study of a particular topic(s) not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

TAX 5066 Tax Research and Reporting (AC) (3). A study of tax planning aspects of a variety of business and other transactions. Emphasis will be placed upon perceiving tax issues and conducting research to resolve them. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5106 Corporate Taxation (AC) (3). Tax implication of corporate formations, distributions, redemptions, liquidations, divisions, reorganizations, collapsibles, attributes, consolidations, S-Corp, AET and PHC's. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5406 Taxation of Estates and Trusts (AC) (3). Study of income tax aspects of decedents, followed by income taxation of estates and trusts (subchapter J). Special emphasis on "throw-back"rules, grantor trusts, charitable remainder trusts, and foreign trusts. Prerequisites: Permission of Accounting certificate program advisor.

TAX 5506 International Dimensions of Taxation (AC) (3). Tax provisions affecting foreign corporations and non-resident aliens, as well as those tax provisions affecting U.S. person's business and investment activities outside the U.S. Prerequisite: Permission of Accounting certificate program advisor.

TAX 5725 Tax Planning (AC) (3). An exploration of the concepts of federal income taxation and tax planning, from the point of view of the manager. Prerequisites: TAX 6065 and permission of accounting certificate program advisor.

TAX 5875 Seminar In Taxation (AC) (3). An in-depth study of recent legislative, administrative, and judicial developments in taxation. Prerequisite: TAX 4001 or equivalent, and permission of Accounting certificate program advisor.

TAX 5904 Independent Study In Taxation (AC) (1-3). Individual conferences, supervised readings, reports on personal investigations. Prerequisite: Written permission of instructor, Accounting certificate program advisor, School director, and dean.

TAX 5936 Special Topics In Taxation (AC) (3). Intensive study for groups of students of a particular topic or topics not otherwise offered in the curriculum. Prerequisite: Written permission instructor, Accounting certificate program advisor, School director, and dean.

TAX 6065 Income Tax Research (AC) (3). An in-depth study of the taxation and planning aspects of a variety of business and other transactions. Emphasis will be upon developing an ability to perceive tax issues and to conduct research to resolve them. Prerequisite: TAX 4001 or equivalent, and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6105 Taxation of Corporations I (AC) (3). The study of the federal tax consequences of the formation, operation, reorganization and liquidation of corporations; election of Subchapter S status; distributions and redemptions. Prerequisite: TAX 6065 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6115 Taxation of Corporations II (AC) (3). An in-depth study of the tax benefits inherent in multiple corporate groups, including consolidated returns and reorganizations. Prerequisites: TAX 6065 and TAX 6105, and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6205 Partnership Taxation (AC) (3). The intensive study of the formation, operation, and dissolution of partnerships (general and limited). Prerequisite: TAX 6065 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6405 Estate and Gift Taxation (AC) (3). The study of the federal estate tax and federal gift tax provisions. Prerequisite: TAX 6065, and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6415 Fiduciary Accounting and Taxation (AC) (3). The study of the income taxation of estates, trust, and the beneficiaries thereof, including the determination of distributable net income, and throwback rules. The grantor trust and income in respect of a decedent is emphasized.The use of trusts in tax and estate planning is also explored. Prerequisites: TAX 6065 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6445 Estate Planning (AC) (3). An in-depth discussion of the use of estate tax planning tools, such as lifetime gifts, life insurance, the marital deduction, the use of trusts, future interests, annuities, powners of appointment, charitable transfers, and post-mortem planning. Prerequisite: TAX 6405 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6505 International Taxation I (AC) (3). Federal income tax provisions applicable to non-resident aliens and foreign corporations. Prerequisite: TAX 6065 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6515 International Taxation II (AC) (3). Federal income tax provisions applicable to U.S. persons, business, and investment activities outside the U.S. Prerequisite: TAX 6505 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6805 Tax Accounting Theory and Procedures (AC) (3). A study of the tax accounting concepts and the judicial doctrines inherent in the federal tax law and in tax planning. Prerequisite: TAX 6065 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6835 Taxation of Deferred Compensation (AC) (3). The taxation of qualified and non-qualified pension and profit-sharing plans, stock options, annuities, lump-sum distributions, death benefits, rollovers, self-employment plans, employee stock ownership plans, etc. Prerequisite: TAX 6065, and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6875 Current Developments In Taxation (AC) (3). The study of recent legislative, administrative and judicial developments in taxation. Prerequisites: TAX 6065 and at least four additional graduate tax courses and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6876 Transactions In Property (AC) (3). An in-depth investigation into tax problems relating to basis, capital gains and losses, and nonrecognition provisions for transactions in property with special emphasis on personal property transactions and securities investments. Prerequisites: TAX 6065 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6877 Seminar In Taxation (AC) (3). Intensive study of a particular topic or a limited number of topics. The topics included in this course will depend upon the availability of faculty with expertise in the following special classes of tax problems: advanced corporate taxation; taxation of not-for-profit institutions; interstate, state and local taxation; and others, as current developments demand. Prerequisites: TAX 6065 and TAX 6805 and admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6905 Independent Study In Taxation (AC) (1-3). Individual conferences, supervised readings; reports on personal investigations. Prerequisites: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 6935 Special Topics In Taxation (AC) (1-3). Intensive study for groups of students of a particular topic(s) not otherwise offered in the curriculum. Prerequisite: Admission to a graduate program in the School of Accounting or permission of the School Director.

TAX 7067 Seminar: Special Topics In Taxation Research (AC) (3). Topics vary according to instructor and student interest in problems and issues on the frontier issues of taxation. Prerequisite: Permission of Doctoral advisor in Accounting.

TAX 7815 Seminar: Tax Policy: An Analysis of the Issues (AC) (3). An in-depth examination of the horizontal and vertical equity issues in taxation, the effects on income distribution, business decisions, foreign balance of payments, public finance issues, and economic policy. Emphasized are the areas of empirical research vis a vis legal research. Prerequisite: Permission of Doctoral advisor in Accounting.

TRA 4012 Transportation Logistics (ME) (3). Consideration of transportation logistics and its relationship to production and distribution. Discussion of characteristics, management, legislation, and public regulation of various modes of transportation.

TRA 4101 Transportation Rate Making (ME) (3). Description and analysis of rate making, for both passenger and cargo, in the various modes of transportation including trucks, railroad, airlines, and ocean transportation. Classes may concentrate on one particular mode for practical applications.

TRA 4203 Physical Distribution Management (ME) (3). Distribution in overall company operations; organization of the traffic function; determination of classification and rates; integration of transportation with production flow, inventory management, warehousing, marketing policies, and plant location.

TRA 4240 Transportation Systems and Services (ME) (3). Survey and analysis of transportation modes, including rail, motor, air, water, pipeline and mass transit, and their impact on the social and economic systems; discussion of current problems.

TRA 4320 Transportation Regulation (ME) (3). Study of the economic and constitutional basis of transport regulation; the scope of regulation. Discussion of the regulation of industrial traffic and transport modes; the structure and policies of federal and state regulatory agencies.

TRA 4380 Transportation Policy (ME) (3). Consideration of national transportation policy; the principal policy issues currently facing the transportation modes.

TRA 4410 Air Transportation (ME) (3). A comprehensive introduction to the total air transportation environment including general economic characteristics of basic areas; commercial, private, corporate, and airline categories; government promotion and regulation of the industry, including aircraft manufacturing and operation; air traffic control; and airport support and functions.

TRA 4411 Airport Management (ME) (3). Application of management principles to airport operation, with emphasis on unique characteristics of airport finance; government relations and regulations; airline relations and interdependence.

TRA 4412 Air Carrier Management (ME) (3). An introduction to the broad scope of airline management practices and policies. Particular emphasis on problem analysis in financing, marketing, scheduling, fleet planning, facilities planning, maintenance, and general operations.

TRA 4510 Mass Transportation and Urban Problems (ME) (3). Urban and metropolitan transportation development; requirements, benefits and costs of alternative approaches to mass transit; management techniques and operating principles, policy and regulation.

TRA 4906 Independent Study In Transportation (ME) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

TRA 4936 Special Topics In Transportation (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

TRA 4941 Transportation Internship (ME) (1-6). Full time supervised work in a selected organization. Prerequisites: At least twelve hours in transportation; consent of instructor and Department Chairperson required.

TRA 5245 Transportation Logistics (ME) (3). Quantitative methods applied to solving problems in business logistics; mathematical and statistical models; optionalization theory and simulation. Problems selected from areas of physical distribution management, inventory control, mode selection, and facility locations.

TRA 5401 Transportation Operations and Carrier Management (ME) (3). Contemporary management techniques as applied to carriers; management-problems peculiar to transportation firms; economic analysis of marketing problems; capital formation; costs; pricing; labor relations; and government regulation.

TRA 6035 Graduate Survey of Transportation Management (ME) (3). Graduate survey of transportation, its elements, and their impact on society. History, economics, and regulatory principles in transportation. Current policies and problems for all the major transportation modes.

TRA 6905 Independent Study in Transportation (ME) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

TRA 6936 Special Topics in Transportation (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

College of Business Administration

Dean	**Charles A. Nickerson**
Associate Dean	**Donald W. Fair**
Associate Dean	**Enzo R. Valenzi**
Associate Dean, North Miami Campus	**Sydney Roslow**
Assistant Dean,	**Anne M. Fiedler**
Director, School of Accounting	**Lewis F. Davidson**
Chairpersons:	
Decision Sciences and Information Systems	**Daniel Robey**
Finance	**Robert M. Bear**
Management and International Business	**Dena L. Farrow**
Marketing and Environment	**TBA**

Faculty

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Zegan, Peter J., M.S. *(University of Florida), Lecturer, Decision Sciences and Information Systems*

College of Education

College of Education

The College of Education has as its primary mission the improvement of educational practice. To fulfill its mission, the College offers instructional programs at the undergraduate and graduate levels, engages in research and development activities, and provides field services to the educational community, principally in the South Florida region served by the University. The mission of the College arises from a comprehensive view of education in a learning society in which demands for educational services are multiplying at an unprecedented rate. Accordingly, the College concerns itself with education broadly conceived, across the entire lifespan, in multiple settings and institutions, and in a variety of social and cultural contexts.

The College of Education has two major academic units designed to fulfill its mission: the Division of Curriculum and Instruction (C and I) and the Division of Educational Policy and Human Resource Development (EPHRD). The College also administers the newly developed Urban Education Program.

Division of Curriculum and Instruction programs include art education, bilingual education, biology education, chemistry education, early childhood education, elementary education, English education, history education, mathematics education, modern language education, music education, physical education, physics education, reading education, social studies education and special education.

Division of Educational Policy and Human Resource Development programs include adult education and human resource development, educational leadership, educational psychology (including counseling and school psychology); international development education; vocational education programs (administration and supervision of industrial education, business teacher education, health occupations education, industrial arts education, post-secondary technical education, vocational home economics education, and vocational industrial education); and parks and recreation.

The Urban Education Program comprises the Urban Education Certificate Program and the Master's Degree in Urban Education. Applicants to the College's programs should carefully examine the choices of major concentrations and program objectives.

Because there are occasional revisions of College of Education curriculum during the academic year, some program changes may not be reflected in the current catalog. Prospective students are advised to contact appropriate advisors to ask for current information regarding specific programs of interest.

General advisement is available by telephone: (305) 554-2768 for University Park, (305) 940-5820 for North Miami Campus, and (305) 523-4422 for Broward County. Specific program advisement is available by prearranged personal appointment with advisors at all locations.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Undergraduate Programs (Bachelor of Science)

Undergraduate students will complete at least 60 semester hours of study at the University, including a residency requirement of 30 semester hours prior to graduation. Before formal admission to the University, a student may be approved to take 15 credits as a non-degree seeking student which, if applicable to the major field of study and approved by an advisor, may be applied to the degree program.

Foundations of Education Requirement

Teacher education regulations in Florida require completion of one course in psychological foundations of education and one course in social foundations of education. These courses must be completed at the University prior to student teaching. Students must take Introduction to Educational Psychology (EDP 3004) to complete the psychological foundations requirement. Either Education in History (EDF 3521) or Philosophy of Education (EDF 3542) may be taken to complete the social foundations requirement.

Reading Competence Requirement

Florida's Department of Education regulations require that teacher certification applicants show evidence of preparation in specific skills for teaching reading. All undergraduate programs in the College are designed to meet this requirement.

Professional Education Core

Every teacher education student, during the junior year, must enroll in the following courses:

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Lab I: Basic Teaching Skills	3
EDG 3321L	General Teaching Lab I: Laboratory	2
EDG 3322	General Teaching Lab II: Human Relation Skills	3

Subsequent special teaching laboratories and courses build on these core courses to extend and refine knowledge and skill. All programs include one semester of student teaching in a public or approved non-public school. Student teaching requires the student to spend the entire school day on site.

Upon completion of all program requirements, the Bachelor of Science degree is awarded. The student is eligible to apply for a Florida Teacher Certificate in the field of specialization if the student has completed a College of Education State-approved program.

Other requirements for regular certification include submitting to the Florida Department of Education evidence of satisfactory CLAST scores and passing both the professional education and subject area subtests administered by the Department of Education. Applicants must also complete a Beginning Teacher Program approved by the Department of Education.

Undergraduate Admission Requirements

College of Education program standards are intended to insure that students have breadth and depth of background needed for successful upper-division work in education. In addition, they are designed to verify capabilities in the reading, writing, and thinking skills required for a teacher preparation program.

Applicants to the College must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College.

Lower Division Prerequisites

All freshman and sophomore prerequisites for admission into an academic program must be satisfied with a minimum grade of 'C' before admission is completed.

Students must satisfy either the Lower Division Core requirements or the General Education requirements.

In addition students must complete a computer awareness/computer application course (3 credits) and a public speaking course (3 credits)

Test Requirements: All teacher education candidates entering at the junior level must present a minimum score of 835 on the SAT or 17 on the ACT.

Satisfactory completion of a battery of basic skills tests (reading, mathematics, and writing) may be required by the College of Education. Students will be contacted if such testing is necessary.

Based on basic skills test results, remedial instruction may be required prior to or concurrent with College of Education program enrollment.

Undergraduate Grading Policies

Undergraduate students must have an overall GPA of 2.0 in order to graduate. A grade of 'C-' or less is not acceptable toward graduation in any required program of study course, be it in the College of Education or any other unit of the University. Furthermore, a student will not be approved for student teaching with a grade of 'C-' in any required program of study course or a GPA less than 2.0. Specific undergraduate programs may have higher grading criteria than these minimums. Students applying for Florida Teacher Certification must present a GPA of 2.5 or higher in their teaching major.

Graduate Programs (Master's and Doctoral Degrees)

Graduate studies offered by the College provide specialization in degree programs developed to reflect individual student interests. A graduate program may include courses, seminars, field experiences, research courses, thesis, and dissertation, depending upon the student's level and area of emphasis. Master's Degree programs

Applicants for admission to most Master's programs in Education must hold or qualify for Florida teacher certification in the appropriate area. All applicants must also satisfy Board of Regents admission requirements: A GPA of 3.0 in the last two years of undergraduate study or 1000 on the GRE. Applicants admitted with a pending GRE score must submit a test score within one semester to be fully admitted or become a candidate for graduation. Prior to formal admission to a graduate program, students may be approved to take 12 semester hours as non-degree seeking students, which, if applicable to the major field of study and approved by an advisor, may be applied to the degree program.

Graduate students will complete at least 30 semester hours of study at the University to earn a Master of Science degree in education. However, specific programs may require more than the minimum number of hours. Students may transfer six semester hours taken at another accredited college or university toward a master's degree program having 30-45 semester hours, and nine semester hours toward a program having more than 45 semester hours.

Master's program students must maintain an overall GPA of 3.0 in order to graduate. No more than two grades of 'C' and no grades of 'D' received in courses that are part of a master's degree program of study will be accepted toward graduation.

The reading competencies requirement for master's programs may be met by having taken either RED 4150 or RED 4325 at the undergraduate level; taking RED 6155, RED 6336, or RED 6305 at the graduate level, or, with advisor approval, participating in a school district's in-service education program in reading.

No more than two workshop courses may be included in a master's degree program.

Applicants who do not hold or qualify for Florida Teacher Certification may be eligible for the Alternative Track Master of Science Degree described in the Curriculum and Instruction section.

Doctorate Degree Programs

The Doctor of Education degree is offered in Adult Education and Human Resource Development, Community College Teaching, Curriculum and Instruction, Educational Administration and Supervision, and Exceptional Student Education. Advisement for these programs may be obtained by calling the appropriate Division Office or by contacting the Director of Graduate Programs at (305) 554-3206. Detailed admission requirements, program descriptions, and graduation requirements may be obtained from doctoral program advisors in specific areas and by examining program descriptions in this catalog.

For both master's and doctoral programs, applicants who fail to meet the admissions criteria may appeal the admission decision and be considered under the BOR's ten-percent policy. This policy allows up to ten percent of the graduate students admitted for a particular academic year as exceptions to the admissions criteria.

North Miami Campus and Broward Center

The College of Education has programs of studies at the North Miami Campus and at the Broward Center on the Broward Community College Central Campus. Students interested in information regarding the North Miami Campus or Broward Center course offerings should call the College of Education at (305) 948-6747 or (305) 523-4422. All Dade County residents should call (305) 940-5820.

The following areas of study are offered at the North Miami Campus or Broward Center, or both:

1. Adult Education and Human Resource Development - master's and doctoral degrees.
2. Community College Teaching - doctoral degree.
3. Computer Education - area of concentration and certification courses.
4. Early Childhood Education - area of concentration and certification courses.
5. Educational Leadership, Administration, and Supervision - master's degree.
6. Elementary Education - bachelor's, master's degree, and certification courses.
7. Exceptional Student Education -certification courses.
8. Health Occupations Education -certification courses, bachelor's and master's degrees.
9. Reading Education - master's degree.
10. Vocational Education - bachelor's and master's courses
11. Undergraduate Core Courses:

EDG 3004	Introduction to Educational Psychology
EDF 3521	Education in History
EDF 3542	Philosophy of Education
EDF 3723	Schooling in America
EDF 3321	General Teaching Lab I: Basic Teaching Skills
EDF 3321L	General Teaching Lab I: Laboratory
EDF 3322	General Teaching Laboratory II

12. Graduate Core Courses:

EDF 5481	Analysis and Application of Educational Research
EDF 5432	Measurement and Evaluation in Education

Affiliated Student Status

Students who hold a bachelor's or higher degree wishing to continue their studies without pursuing a degree should apply to the College through their program area advisor as Affiliated Students. This status will provide the student advisement, early registration and permission to exceed the 12-15 semester hours enrollment limit place upon non-degree seeking students.

Urban Education

Graduate Certificate Program

This 15 semester-hour certificate program is designed to meet the needs of teachers working in urban schools.

Dade County Public School teachers currently teaching in Chapter I schools are eligible to apply for tuition reimbursement and stipends. A limited number of teachers are selected by Dade County Public Schools to participate in the program. Applications are available from, and should be submitted to, the Bureau of Education, Dade County Public Schools. Details concerning tuition reimbursement and stipends are available from United Teachers of Dade or the Bureau of Staff Development, Dade County Public Schools.

Topics which are included in the courses are the Urban Community, Effective Education Strategies, Assessment of Student Performance, Classroom Management, Language Development, Learning Styles, Motivational Techniques, Multi-Cultural Perspectives, Parental Community Involvement, and Problem Solving as it relates to the teaching of basic skills.

Admission

To be admitted to the program the student must have a bachelor's degree from an accredited college or university; have a valid Florida Teaching Certificate; and be currently employed as a teacher in selected Dade County Chapter I Schools.

Required Courses: (15 semester hours)

EDF 5941	Practicum I in Urban Schools Education	5
EDF 5942	Practicum II in Urban Schools Education	5
EDF 5943	Practicum III in Urban Schools Education	5

Master of Science Degree in Urban Education

To be eligible to enroll in the Master's in Urban Education program, students must meet all the University's and the College of Education's admission requirements.

Required Courses

EDF 5941	Practicum I in Urban Schools Education	5
EDF 5942	Practicum II in Urban Schools Education	5
EDF 5943	Practicum III in Urban Schools Education	5
EDF 5481	Analysis and Application of Education Research	3
EDE 5267	Education of the Child in Urban Society	3
EDF 6211	Psychological Foundations of Education	3
EDE 6488	Research in Elementary Education	3
or		
EDF 6425	Research in Secondary Education Guided	
Electives: As approved by the student's advisor		6

Course Descriptions

EDF 5941 Practicum I in Urban Education (5). Demonstration of competencies needed by teachers in urban schools. Prerequisite: Current Florida Teaching Certificate.

EDF 5942 Practicum II in Urban Education (5). Demonstration of competencies needed by teachers in urban schools. Prerequisite: Current Florida Teaching Certificate.

EDF 5943 Practicum III in Urban Education (5). Demonstration of competencies needed by teachers in urban schools. Prerequisite: Current Florida Teaching Certificate.

EDF 6925 Workshop in Urban Education (1-5). An opportunity for school personnel to develop special competencies in teaching in an urban environment. Prerequisite: Permission of instructor.

Curriculum and Instruction

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Judith A. Blucker, *Professor, Physical Education, and Vice Provost*
Ray Cafolla, *Instructor, Computer Education*
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Ida F. Chadwick, *Associate Professor, Physical Education*
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Stephen M. Fain, *Professor and Associate Dean*
Robert V. Farrell, *Associate Professor*
Arnhilda Gonzalez-Quevedo, *Associate Professor, Bilingual Education/Modern Languages and Assistant Vice-President, Academic Affairs*
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Richard Lopez, *Associate Professor, Physical Education*
Luretha F. Lucky, *Associate Professor, Mental Retardation*
Edwin C. McClintock, *Associate Professor, Mathematics Education*
Edythe Margolin, *Professor, Early Childhood Education*
Nancy Marshall, *Associate Professor, Reading and Language Arts Education*
Grover C. Mathewson, *Associate Professor, Reading and Language Arts Education*
Alicia Mendoza, *Associate Professor, Early Childhood Education*
George S. Morrison, *Professor, Early Childhood Education and Urban Education*
David E. Nathanson, *Professor, Gifted Education and Mental Retardation*
Loriana M. Novoa, *Assistant Professor, Special Education and Educational Research*
George B. Pearson, *Professor, Physical Education*
Clement Pennington, *Associate Professor, Art Education*
Edward M. Reichbach, *Associate Professor, Social Studies Education*
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Colleen A. Ryan, *Associate Professor, Emotionally Handicapped*
Robert Shostak, *Professor, English Education*
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Nicholas J. Vigilante, *Professor, Mathematics Education*
Michael J. Wagner, *Professor, Music Education*
James D. Wells, *Associate Professor*
Sandra Woods, *Associate Professor*

The Division of Curriculum and Instruction offers undergraduate and graduate programs for students who are interested in teaching in Early Childhood, Elementary, Secondary, and Special Education; and in Art, Music, and Physical Education in 1-12 grades.

The undergraduate programs are as follows: (Graduate programs are listed and described following undergraduate programs):

Early Childhood Education
Elementary Education
General: Grades 1-12
Art Education
Music Education
Physical Education (K-8, 6-12)
Secondary Education: Grades 7-12
Biology Education
Chemistry Education
English Education
History Education
Mathematics Education
Modern Language Education
Physics Education
Social Studies
Special Education
Emotionally Handicapped
Gifted Education
Learning Disabilities
Mental Retardation
Non-Teaching Specialization
Exercise Physiology
Sports Management

Upon Admission to the University and to the College, each student major in the Division is assigned an advisor in the teaching field who will assist the student in constructing a program of study. The program of study must comply with the University's degree requirements and will reflect the career goals of the student. Upon successful completion of the work specified in the program of study, the student is awarded a Bachelor of Science Degree with a major in a specific subject matter area or level of schooling (e.g., early childhood, elementary, secondary), and is eligible for regular teacher certification in the State of Florida upon successful completion of requirements specified by the Florida Department of Education.

Laboratory Experiences

Most courses offered by this Division require observation and participation in selected schools. The course descriptions identify those courses which require in-school classroom experiences guided by the directing classroom teacher and a University faculty member of the College of Education.

The student teaching assignments are fulfilled in designated field centers. This experience is on a full-time basis for a complete semester. Permission to student teach is contingent upon successful completion of all other requirements specified in the program of study. Students may be assigned to do their student teaching during the Fall or Spring semester of the senior year. There is no student teaching in the Summer semester.

Application for student teaching is the responsibility of the student. Necessary forms may be obtained from the Division office and should be returned early to the Division, but no later than two semesters prior to student teaching.

Art Education: Grades 1-12

Degree: **Bachelor of Science**

Lower Division Preparation

An Associate of Arts Degree in Art, or (a) Art History Survey (6 semester hours) and (b) Basic and Figure Drawing (6 semester hours) and (c) Two and Three-Dimensional Design (6 semester hours).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (71 semester hours)

Subject Matter Specialization: (30)

ARH 4470	Contemporary Art, Art History Elective	6
ART 3111C	Ceramics	3
ART 3150C	Jewelry and Metals	3
ART 3401C	Printmaking	3
ART 3510C	Painting	3
ART 3601C	Photography	3
ART 3702C	Sculpture	3
Art Electives		6
CTE 4421	Creative Textiles	3

Professional Education: (41)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete the six semester hours of foundations course, and all core courses before enrolling in 4000-level special methods courses.

Note: ARE 4316 and ARE 4341 must be taken in sequence before ARE 4940.

ARE 4316	Special Teaching Laboratory: Art in Grades K-6	3

Prerequisite or corequisite of 18 hours required in subject matter specialization

ARE 4341	Special Teaching Laboratory: Art in Grades 7-12	3

Prerequisite or corequisite of 30 hours required in subject matter specialization

ARE 4940	Student Teaching in Art	12
Advisor Approved Electives		3

Biology Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation

Eight semester hours of biology; eight semester hours of general chemistry; eight semester hours of general physics; mathematics through analytical geometry.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (67 semester hours)

Subject Matter Specialization: (35)

Genetics	3
Ecology	5
Physiology/Biochemistry	5
Electives in Biology[1]	7
Organic Chemistry	10
Quantitative Analysis	5

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete six (6 semester) hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for SCE 4330 and SCE 4944 in consecutive semesters.

SCE 4330	Special Teaching Laboratory: Science	3

Prerequisite or corequisite of 20 hours required in subject matter specialization.

SCE 4944	Student Teaching	9

[1] BSC 3023, 3033; 3253; OCB 3010; BOT 3823; PCB 3703; BSC 3913 and 4914 are not applicable to this requirement.

Chemistry Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation

Eight semester hours of general chemistry; eight semester hours of general physics; mathematics through Calculus I.

Recommended Course: Organic Chemistry

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (62 semester hours)

Subject Matter Specialization: (30)

Organic Chemistry I and II	6
Organic Chemistry Laboratories	3
Quantitative Analysis and Laboratories	5
Physical Chemistry and Laboratory	5
Electives in Chemistry	8
Calculus II	3

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete six (6 semester) hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for SCE 4330 and 4944 in consecutive semesters.

SCE 4330	Special Teaching Laboratory: Science	3

Prerequisite or corequisite of 20 hours required in subject matter specialization.

SCE 4944	Student Teaching	9

Sufficient number of hours to accrue to a total of 62 semester hours at the University.

Elementary Education: Grades 1-6

Degree: **Bachelor of Science**

Lower Division Preparation

An Associate of Arts Degree or equivalent preparation in basic general education. If a student has not completed equivalents of the courses noted below, these courses must be completed prior to enrollment in requisite courses at the University with a grade of 'C' or higher.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

General Education:

Mathematics	6
Physical Science	3
Biological Science	3
Art skills course (or demonstrated competencies)	3
Music skills course (or demonstrated competencies)	3
Speech	3
Computer awareness/computer application	3

Upper Division Program: (74 semester hours)

Core Courses: (17)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Program Courses: (30)

ARE 3313	Experiencing Art in the Elementary School	3
MUE 3313	Experiencing Music in the Elementary School	3
EDE 4451C	Evaluation in the Elementary School	3
HLP 3013	Health and Physical Education for Children	3
LAE 4314	Communication Skills II	3
MAE 4312	Inquiry in the Mathematics in the Elementary School	3
RED 4150	Communication Skills I	3

RED 4311	Communication Skills III	3
SCE 4310	Inquiry in Science in the Elementary School	3
SSE 4312	Inquiry in Social Studies in the Elementary School	3

Guided Electives[1]: (9)
Internship I-A, I-B and I-C (to be taken with Program Courses above).
Internship I: Students are required to spend a minimum of two hours per week in an assigned elementary public school for each of the internship courses.

EDE 4940	Internship I-A	1
EDE 4941	Internship I-B	1
EDE 4942	Internship I-C	1

Tasks Observation and Participation (TOP): A student must complete TOP experiences in an elementary public school concurrent with all special methods or program courses.

[1] Students using Early Childhood as Guided electives must complete all following:

EEC 4204	Curriculum and Instruction in Early Childhood Education	3
EEC 4005	Early Childhood Education Programs	3
EEC 4301	Trends in Early Childhood Education	3
EEC 4940	Internship I-A	1
EEC 4941	Internship I-B	1

Student Teaching Block: All lower division prerequisites and program requirements must be completed before taking this block.

Internship II: This is a full time commitment for one semester after all other program courses have been completed successfully with a grade of 'C' or higher. Student must make an application and register for this course. Internship II is not offered in the summer term.

EDE 4943	Internship II	12
EDE 4936	Senior Seminar in Elementary Education	3

Total Semester Hours for Elementary Education Majors	74

English Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation
Two courses in freshman English; survey of English literature I, II; six hours of English at the 2000-level, literature or composition. If the required courses beyond freshman composition are not completed they will be included in the student's program in addition to regular upper division requirements. To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Upper Division Program

Upper Division Program: (62 semester hours)
Subject Matter Specialization: (30)

LIN 3010	Introductory Linguistics	3
LIN 4341	Modern Grammars (Prerequisite: LIN 3010)	3
LAE 4464	Adolescent Literature	3
American Literature		6
English Literature		6
Shakespeare		3
Restricted electives		6

Professional Education: (35)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

A student must complete six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for LAE 4335 and LAE 4942 in consecutive semesters.

LAE 4335	Special Teaching Laboratory English	3

Prerequisite of 20 hours required in English courses beyond lower division prerequisites

LAE 4942	Student Teaching	12

Prerequisite of 27 hours of English courses beyond lower division prerequisites.

History Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation
Two courses in history and one course in the social sciences beyond freshman social science core (selected from anthropology, economics, geography, political science, or sociology).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (65 semester hours)
Subject Matter Specialization: (30)

HIS 3001	Introduction to History	3
U.S. History at 3000, 4000, or 5000 levels		6
History other than U.S.		12
POS 3044	U.S. Government	3
SSE 4380	Global Perspectives	3
Advisor Approved Electives		3

Professional Education: (35)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3304	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete six semester hours of foundations courses and all core courses before enrolling in 4000-level methods courses. A student must enroll for SSE 4384C and SSE 4942 in consecutive semesters.

SSE 4384C	Special Teaching Laboratory: Social Studies	3
SSE 4942	Student Teaching	12

It is recommended that the student consider a double major which combines a major in history education with a major in social studies, international relations, political science, economics, anthropology, sociology, or history. The student must consult with the history education advisor about these requirements.

Mathematics Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation
Trigonometry. Analytic Geometry. Calculus (through MAC 3413 or equivalent). To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (65 semester hours)
Subject Matter Specialization: (30)
Thirty semester hours beyond calculus (MAC 3413 or equivalent), including at least six semester hours in probability and statistics, and three semester hours in computer science and geometry.

Professional Education: (35)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for MAE 4333C and MAE 4942 in consecutive semesters.

MAE 4333C	Special Teaching Laboratory: Mathematics	3

Prerequisite or corequisite of 24 hours required in subject matter specialization, including MTG 3212, STA 3321 and STA 3322, COP 3112, or approved substitutes; permission of instructor required

MAE 4942	Student Teaching	9
MAE 5648	Computers in Mathematics Education	3

Modern Language Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation

Four semesters of elementary and intermediate modern language (may be waived at the discretion of the advisor for native speakers of the target language).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (62 semester hours)
Subject Matter Specialization: (30)

Phonetics or Contrastive Phonology	3
Introduction to Linguistics or Linguistics in Target Language	3
Civilization	3
Syntax/Composition	3
Literature in Target Language	6
MOL Electives	12

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete the six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for FLE 4375 and FLE 4942 in consecutive semesters.

FLE 4375	Special Teaching Laboratory: Modern Languages	3

Prerequisite or corequisite of 20 hours required in subject matter specialization.

FLE 4942	Student Teaching	9

Approved Electives: Sufficient number of hours to accrue to a total of 62 semester hours at the University.

Music Education: Grades 1-12

Degree: **Bachelor of Science**

Lower Division Preparation

An Associate of Arts Degree in Music or the following recommended courses: applied, four semesters; history, four semester hours; organizations, four semesters; techniques secondary instruments, four semester hours; theory, 12 semester hours; sight-singing, four semester hours; class piano, four semesters.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (76 semester hours)
Subject Matter Specialization: (38)

Applied Music (Four semesters; hour lessons on major instrument each semester)	8
Basic Conducting	1
Instrumental or Choral	1
Form and Analysis	3
Counterpoint	3
Guitar	1
Music History Survey I	3
Music History Survey II	3
Twentieth Century Music History	3
Orchestration	3
Organizations (2 each semester)	8
Research and Recital	1

Professional Education: (38)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory; Reading	3

Special Methods and Student Teaching: A student must complete the six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses.

MUE 3332	Special Teaching Laboratory I: Music	3
MUE 4341	Special Teaching Laboratory II: Music (K-12)	3

Prerequisite or corequisite of 20 hours required in subject matter specialization

MUE 4940	Student Teaching (Elementary and Secondary)	12

Physical Education

Presently, the physical education program offers four tracks leading to a Bachelor of Science degree in Physical Education. They are the teacher certification tracks, the exercise physiology track, and the sports management track. The two teacher certification tracks prepare the student for a Florida teaching certificate in physical education, grades K-8 or grades 6-12. The exercise physiology track is designed for students interested in working in a cardiac rehabilitation or corporate fitness setting. The sports management track prepares students for managerial positions in sports-related fields.

Physical Education: Grades K-8

Degree: **Bachelor of Science**

Lower Division Preparation
Required Courses:

First Aid; physical education major courses in social and folk or modern dance, aquatics, gymnastics, in addition to a minimum of two individual sports and two team sports. All required courses must be completed with a grade of 'C' or higher. To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Remarks: Students who have not completed the required courses may apply for admission if the deficiencies are not greater that eight semester hours. However, all program prerequisites must be completed before entry into the senior year. Students must meet all College of Education admission requirements.

Upper Division Program: (62 semester hours)
Professional Education: (17)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

Subject Matter Specialization: (45)

APB 2040	Foundations of Human Physiology	3
PET 3310	Kinesiology	3
PET 3351	Exercise Physiology	3
PEO 4041	Games in the Elementary and Middle School	3
DAE 3371	Dance in the Elementary and Middle School	3
PEP 3205	Gymnastics in the Elementary and Middle School	3
PET 4035	Motor Development	3
PET 4435	Special Teaching Lab: Physical Education: K-8	3
PET 4662C	Athletic Injuries	3
PET 3640	Adapted Physical Education	3
ARE 3313	Experiencing Art in Elementary School	3
or		
MUE 3313	Experiencing Music in Elementary School	
	Advisor approved course in Reading or Language Arts	3
PET 4945L	Student Teaching	9

Physical Education: Grades 6-12

Degree: **Bachelor of Science**

Lower Division Preparation

Required Courses:

First Aid or personal health or health education; physical education major courses in dance, aquatics, gymnastics, in addition to a minimum of two individual sports and two team sports. All required courses must be completed with a grade of 'C' or higher.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Remarks: All physical education majors are expected to be proficient in the following activities: football, soccer, volleyball, basketball, folk, social, and square dance, track and field, tennis, golf, gymnastics, and badminton. At the lower division, students should enroll in those courses in which they are least proficient. Students who have not completed the required courses may apply for admission if the deficiencies are not greater than twelve semester hours. However, all program prerequisites must be completed prior to entry into the senior year.

Upper Division Program: (65 semester hours)

Professional Education: (20)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3
RED 4235	Special Teaching Lab: Reading	3

Subject Matter Specialization: (45)

PET 3310	Kinesiology	3
PET 3351	Exercise Physiology	3
PET 3640C	Adapted Physical Education	3
APB 2040	Foundations of Human Physiology	3
PET 4510	Evaluation in Physical Education	3
PEO 4004	Coaching Sports	3
PET 4622C	Athletic Injuries	3
PET 4031	Methods and Curriculum in Individual Sports	3
PET 4011	Methods and Curriculum in Team Sports	3
DAE 4362	Dance in the Middle and Secondary Schools	3
PEP 4102	Methods and Curriculum for Fitness Development	3
PET 4401	Organization and Administration of Physical Education Programs for Grades 6-12	3
PET 4945L	Student Teaching	9

Exercise Physiology Track

The undergraduate exercise physiology track is designed to prepare individuals to work in the field of exercise testing, cardiac rehabilitation, and adult fitness. The track will prepare students for certification in two areas. Entry level certification in the first area is that of Exercise Test Technologist, which is provided by the American College of Sports Medicine. The second area of certification emphasizes the development of exercise programs for those with controlled disease or without disease. Certification is that of Fitness Instructor, which is also provided by the American College of Sports Medicine.

Admission Requirements

Lower Division Preparation

Students will be required to meet the University lower division requirements. In addition, they will be required to have a minimum of six credits in the biological and physical sciences. At least three of the six credits must be in biology. Entrance Exam: Students will be required to meet the current entrance examination requirements of the College of Education. Presently, those requirements are 840 on the SAT or 17 on the ACT.

Upper Division Program: (60 semester hours)

PET 3351	Exercise Physiology	3
PET 5387	Exercise Test Technology	3
PEP 5115	Fitness Instructor	3
PET 3310	Kinesiology	3
or		
An approved alternative in Kinesiology or Applied Anatomy		
PET 4622	Athletic Injuries	3
An approved alternative in Athletic Injuries or Sports Medicine		
HUN 3201	Principles of Nutrition	3
or		
HUN 3017	Nutrition for Health Professionals	
or		
An approved alternative in Nutrition		
APB 2040	Foundations of Human Physiology	3
or		
PCB 3703	Human Physiology I	
or		
An approved alternative in Biology		
PCB 3702	Intermediate Human Physiology	3
or		
An approved alternative in Biology		
ZOO 3731	Human Anatomy	3
or		
ZOO 3733	Human Gross Anatomy	
or		
An approved alternative in biology		
PET 4940	Internship in Exercise Physiology: Undergraduate	3
Restricted Electives		3

A student is required to take a minimum of one additional, instructor-approved class in on one of the following three areas: biological sciences, physical sciences, and nutrition sciences

Electives	27

Sports Management Track

Lower Division Preparation

It is recommended that students complete introductory accounting and management courses as well as a variety of sports skill classes.

To qualify for admission to the program, students must have met all lower division requirements of the University. SAT or ACT test scores must be submitted. If the test scores do not meet the College's requirements, the student may request that a program advisor review the scores and other academic records for consideration for admission.

Upper Division Program: (60 semester hours)

APB 2040	Foundations of Human Physiology	3
PET 3310	Kinesiology	3
PET 3351	Exercise Physiology	3
PET 4004	Coaching Sports	3
PET 4622	Athletic Injuries	3
PET 5416	Sports Administration and Management	3
PET 5936	Special Topics	6
PEP 5115	Fitness Instructor	3
PET 4946	Sports Administration Internship	6-9
BUL 4111	Business Law	3
or		
PAD 4603	Administrative Law	
MAN 3025	Organization and Management Decision Styles	3
or		

PAD 4432	Administration Leadership and Behavior	
LEI 3542	Principles of Parks and Recreational Management	3
or		
LEI 3524	Personnel Management in Parks and Recreation	

Advised Program Electives: (24-30)
With the prior approval and knowledge of the program advisor, students will be allowed to choose electives which build a specialized degree program based on the student's long-term career goals. Examples of appropriate electives would include but not be limited to at least twelve total hours from such areas as Public Administration, Nutrition, Psychology, Sociology, and Parks and Recreation. Other appropriate courses from across the University may be used with prior approval from the program advisor and the selected department.

Physics Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation
Eight semester hours of general physics; eight semester hours of general chemistry, mathematics through calculus II.

Remarks: Linear Algebra is a prerequisite for multivariable calculus.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (64 semester hours)
Subject Matter Specialization: (30)

Physics with Calculus	10
Physics Laboratories	2
Modem Physics	6
Electives in Physics	9
Multivariable Calculus	3

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
or		
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete six hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for SCE 4330 and SCE

Prerequisite or corequisite of 20 hours required in subject matter specialization

SCE 4330	Special Teaching Laboratory: Science	3
SCE 4330	Special Teaching Laboratory: Science	3
SCE 4944	Student Teaching	9

Advisor Approved Electives: Sufficient number of hours to accrue to a total of 64 semester hours at the University.

Social Studies Education: Grades 7-12

Degree: **Bachelor of Science**

Lower Division Preparation
Two courses in history and one course in the social sciences beyond freshman social science core (select from anthropology, economics, geography, political science, or sociology).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. Upper Division Program.

Upper Division Program: (65 semester hours)
Subject Matter Specialization: (30)

History		9
POS 3044	Political Science	3
GEA 3000	Geography	3
Economics		3
Anthropology or Sociology		3
SSE 4380	Global Perspectives	3
Advisor Approved		6

Professional Education: (35)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching: A student must complete six semester hours of foundation courses, and all core courses before enrolling in 4000-level special methods courses. A student must enroll for SSE 4384C and SSE 4942 in consecutive semesters.

SSE 4384C	Special Teaching Laboratory: Social Studies	3
SSE 4942	Student Teaching	12

A minimum of 40 semester hours at the lower and upper divisions combined must be completed in the social studies subject matter specialization for certification. Electives must include sufficient semester hours in United States history (6), history other than United States (10), political science (6), geography (6), economics (6), anthropology (3), and sociology (3) to meet social studies certification requirements. It is recommended that the student considers a double major which combines a major in social studies with a major in history, history education, international relations, political science, economics, anthropology, or sociology. The student must consult with the social studies advisor about these requirements.

Special Education

The undergraduate special education programs utilize a competency-based and field-centered training model and lead to approval for Florida Certification in Specific Learning Disabilities, Emotionally Handicapped, and Mental Retardation. A student may elect a major in any one of the three areas. Courses leading to certification in the area of the Gifted are also offered at the graduate level.

The special education program recognizes that handicapped children are entitled to a free and appropriate public education, that all handicapped children are to be educated in the least restrictive yet most enabling environment and are to be mainstreamed to the greatest extent possible. Special educators also provide services to preschool children and adults.

Given this context, undergraduate special education programs emphasize the development of the following competencies to be demonstrated in both the University and field settings:

1. Identifying and diagnosing students with learning and behavior problems.
2. Prescribing and implementing appropriate individual educational plans to meet these problems.
3. Effecting appropriate instruction for children with learning and behavior problems.
4. Managing classroom behavior.
5. Planning for mainstreaming and parent conferencing.

Diagnostic-prescriptive and management skills are to be demonstrated with students who range from pre-school through adulthood, who are mildly, moderately, severely, and profoundly handicapped, and represent multicultural, multilingual backgrounds.

Degree: **Bachelor of Science**

Lower Division Preparation: An Associate of Arts Degree or equivalent preparation in basic general education. General Education Requirements as approved by the faculty of the College. See advisor for prerequisites.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (68 semester hours)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Lab I	3
EDG 3321L	General Teaching Lab I	2
EDG 3322	General Teaching Human Relations, Lab II	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
or		
EDF 3542	Philosophy of Education	
EEX 3010C	Introduction to Exceptional Children and Youth[1]	3
SPA 3000	Introduction to Language Development and Communication Disorders	3
EEX 3221	Assessment of Exceptional Children and Youth	3
EEX 3202	Foundations of Exceptionality[1]	3
EEX 4241	Academic Skills for Exceptional Children[1]	3
EMR 4251	Educational Planning for the Mentally Retarded[1,2]	3
or		
ELD 4240	Educational Planning for Specific Learning Disabilities[1,2]	
or		
EED 4227C	Educational Planning for Emotional Handicaps[1,2]	
EEX 4242	Academic Skills II[1]	3
EEX 4601	Behavioral Approaches to Classroom Learning I[1]	3
EEX 4611	Behavioral Approaches to Classroom Learning II[1]	3
RED 4150	Communication Skills I[1]	3
LAE 4314	Communication Skills III[1]	3
MAE 4312	Inquiry in Mathematics in the Elementary School[1]	3
EEX 4861	Student Teaching	12
Elective Course with advisor's consultation		3

[1] Field Work Required.

[2] One of these three courses must be taken based on major.

Note: Courses within the undergraduate training program require field placement during school hours. In addition to a full-time student teaching placement during the final semester of training, students engage in a senior BLOCK experience the first semester of their senior year. This experience requires fifteen to twenty-five hours a week of placement in an educational setting and class attendance at the University. Permission to student teach is contingent upon advisor's approval and upon completion of all requirements specified in the program.

Graduate Programs

The following programs are offered for qualified student's who are interested in pursuing a Master's Degree.

Art Education
Early Childhood Education
Elementary Education
English Education
Exceptional Student Education
Emotionally Handicapped
Mental Retardation
Specific Learning Disabilities
Mathematics Education
Modern Language Education
Music Education
Physical Education
Exercise Physiology Track
Sports Management Track
Reading Education
Science Education
Social Studies Education

Teaching English to Speakers of Other Languages (TESOL)

Program applicants must present GRE scores for the Verbal and Quantitative sections. For Special Education graduate programs, applicants must present three letters of recommendation (at least one from academic sources and one from work or volunteer experiences) and an autobiographical statement. Candidates are admitted by action of the special education professors' Graduate Admissions Committee. Criteria for program acceptance include GRE scores, undergraduate grade point average during the junior and senior years, work and volunteer experience, quality and source of letters of recommendation, and the candidate's career aspirations and goals. A combined Verbal-Quantitative GRE score of 1000 or GPA of 3.0 or higher during the undergraduate junior and senior years is needed for a candidate to be admitted via regular procedures.

Master of Science: Alternate Track

The Alternate Track modifies the existing master's degree programs to accommodate candidates with a baccalaureate degree appropriate to the certification area but without certification, who are seeking entry into the teaching profession. This modified track will be no less rigorous than the existing master's degree program, but it will include courses which provide the necessary background in professional education together with the master's level academic coursework.

Entry requirements include a bachelor's degree or a strong minor (30 hours with a 3.0 or higher in the major subject area) in a certifiable teaching area (i.e. mathematics, science, modern languages, music, art, English, social studies, history) and a minimum 3.0 cumulative GPA for the two most recent years of study or a combined GRE score of 1000. In either case, the GRE score must be submitted. In addition to the minimum GPA or the combined GRE score, or both, the applicant must receive an affirmative recommendation from the designated Program Leader, Dean of the College, or his designee following a personal interview.

This modification of the degree program requires a minimum of four semester sequence which includes two Summer Terms, a Fall and a Spring Term and will consist of 45-48 semester hours, depending on each student's previous academic preparation.

Alternate Track

All students admitted to this track will complete the following courses as well as the graduate program courses in each of the chosen fields.

EDF 3521	Education in History	3
EDP 3004	Introduction to Educational Psychology	3
EDG 3321	General Teaching, Skills and Lab	3
A Special Teaching Lab: Area		3-6
A Student Teaching course		6

Art Education

Degree: **Master of Science**

Required Program: (36 semester hours)

Education, including Art Education: (15)

EDF 5481	Analysis and Application of Educational Research	3
ARE 6140	Curriculum and Instruction in Art	3
ARE 6262	Organization and Coordination of School and Community Art Programs	3
ARE 6706	Seminar in Art Education: Contemporary Issues and Research	3

Select one of the following:

EDE 6205	Curriculum Design for Childhood Education
or	
ESE 6215	Secondary School Teaching Field
or	
EEX 6051	Exceptional Children and Youth

Five graduate art courses, including one art history:

Art History	3
Studio Art (Three semester hours credit for each studio course)	12
Advisor Approved Electives (2)	6

Early Childhood Education

Applicants for admission to the Master's program in Early Childhood Education must hold or qualify for Florida certification or equivalent in elementary education, and must satisfy requirements for scholastic aptitude as determined by the graduate admissions standards: GPA of 3.0 or 1000 on GRE. Applicants must submit GRE scores.

Degree: **Master of Science**

Standard Track

Required Program: (36 semester hours)

EDE 6205	Curriculum Design for Childhood Education	3
EDF 5432	Measurement and Evaluation in Education	3
EDF 5481	Analysis and Application of Educational Research	3

EEC 6205	Education Programs for Younger Children	3
RED 6305	Instruction in Reading	3

Psychology, Sociology, or Anthropology course (consult advisor 4000-level course or higher) 3

Specialization Courses: Courses to be selected from among Early Childhood course listings, in consultation and with approval of advisor 18

Thesis Track

Required Program: (36 semester hours)

This master's thesis track provides a special foundation for doctoral Degree program entrance. Required Program

EDE 6205	Curriculum Design for Childhood Education	3
EDF 5432	Measurement and Evaluation in Education	3
EDF 5481	Analysis and Application of Educational Research	3
EEC 6678	Research	3
EEC 6932	Seminar	3
RED 6305	Instruction in Reading (Early Childhood)	3

Psychology, Sociology, or Anthropology course (consult advisor) 3

EEC 6971	Thesis	6

Specialization Courses to be selected from among course listings in either early childhood education, elementary education, or reading education, depending upon major 9

Elementary Education

Applicants for admission to the Master's program in Elementary Education must: (1) hold or qualify for Florida certification or equivalent in elementary education, and (2) satisfy requirements for scholastic aptitude as determined by the graduate admissions standards: GPA of 3.0 or 1000 on GRE, or both. The applicants must submit GRE scores. The final decision for admission rests with the Faculty Admissions Committee.

Degree: **Master of Science**

Standard Track

Required Program: (36 semester hours)

EDE 6205	Curriculum Design for Childhood Education	3
EDE 6225	Educational Program for Older Children	3
EDF 5432	Measurement and Evaluation in Education	3
EDF 5481	Analysis and Application of Educational Research	3
RED 6155	Instruction in Reading	3

Psychology, Sociology, or Anthropology course (consult advisor - 4000-level or higher) 3

Specialization Courses: Courses to be selected from among Elementary course only and in consultation and with approval of advisor. 18

Thesis Track

Required Program: (36 semester hours)

This master's thesis track provides a special foundation for doctoral degree program entrance.

EDE 6205	Curriculum Design for Childhood Education	3
EDE 6225	Educational Programs for Older Children	3
EDF 5432	Measurement and Evaluation in Education	3
EDF 5481	Analysis and application of Educational Research	3
EDE 6488	Research	3
EDE 6930	Seminar	3
RED 6155	Instruction in Reading	3

Psychology, Sociology, or Anthropology course (consult advisor) 3

EDE 6971	Thesis	6

Specialization Courses: Courses to be selected from among course listings in either early childhood education, elementary education, or reading education, depending upon major 6

English Education

Degree: **Master of Science**

Required Program: (30 semester hours)

EDF 5481	Analysis and Application of Educational Research	3
LAE 6339	Teaching English in the Secondary School[1]	3
ESE 6215	Secondary School Curriculum	3
LAE 6935	Seminar in English Education	3

[1] Prerequisite: Undergraduate English methods course Teaching Field: English 15

Advisor Approved Electives: 3

Mathematics Education

Degree: **Master of Science**

Required Program: (33 semester hours)

EDF 5481	Analysis and Application of Educational Research	3
MAE 6336	Teaching Mathematics in the Secondary School[1]	3
MAE 6899	Seminar in Mathematics Education[1]	3
ESE 6215	Secondary School Curriculum	3

Teaching Field: Mathematics 12

Electives: In Education or Mathematics, or both 9

[1] Permission of instructor; undergraduate secondary mathematic methods, and mastery of programming language beyond Basic and graduate level mathematics coursework required.

Modern Language Education

Degree: **Master of Science**

Prerequisites: One course in general linguistics or the successful completion of LIN 3010 or LIN 3013.

Applicants for Admission must hold or qualify for a Florida Rank III Certificate in the area selected, must satisfy requirements for scholastic aptitude as determined by the Graduate Admissions Standards, and must show evidence of a satisfactory record in the teaching field.

To be admitted into the Master's Degree program, the student must hold a bachelor's degree from an accredited university or college; have a 3.0 average or higher in all junior and senior year course work for the bachelor's Degree; or have a combined score (verbal and quantitative) of 1000 or higher on the graduate record examination; or hold a master's degree from an accredited university or college. In any case, the student must present a GRE score; achieve a score of 220 on the Test of Spoken English; and in the case of international students, whose first language is other than English, a score of 500 on the TOEFL examination is also required.

Degree Requirements: The Master of Science Degree will consist of 30 semester hours. A maximum of six semester hours may be transferred into the program from outside the University, subject to the approval of the major advisor. Also, a maximum of six semester hours of upper division undergraduate courses may be included in the program provided they have not been used to satisfy degree requirements for an undergraduate program. This program does not include requirements for initial teacher certification by the State of Florida Department of Education.

The specific graduate requirements are: (30 semester hours)

1. All students will be required to complete the following twelve semester hours in the College of Education:

EDF 5481	Analysis and Application of Educational Research	3
ESE 6215	Secondary School Curriculum (or equivalent)	3
FLE 6336	Teaching Second Language in the Secondary School	3
FLE 6938	Seminar in Second Language Testing	3

2. Supplementary Courses: Students in the M.S. in Modern Language Education Program will choose, in consultation with the advisor, a total of 15 hours from among the following courses in the Departments of English and Modern Languages:

SPW 5237	Traditional Spanish American Novel	3
SPW 5277	Spanish Novel from 1956	3
SPW 5286	Contemporary Spanish American Novel	3
SPW 5346	Poetry: Jorge Guillen	3
SPW 5358	Seminar: Borges	3
SPW 5359	Seminar: Neruda	3
SPW 5425	Quevedo: Poetry	3
SPW 5426	Quevedo: Prose Satire	3
SPW 5505	Spanish Culture	3
SPW 5576	Spanish American Modernism	3
SPW 5155	Comparative Studies	3
SPW 5391	Genre Studies	3

SPW 5934	Special Topics in Language and Literature	3
SPW 5936	Graduate Seminar	3
FRW 5150	Comparative Seminar	3
FRW 5395	Genre Studies	3
FRW 5934	Special Topics in Language and Literature	3
FRW 5938	Graduate Seminar	3
LIN 5600	Introduction to Sociolinguistics	3
LIN 5602	Language Contact	3
LIN 5701	Psychology of Language	3
LIN 5715	Language Acquisition	3
LIN 5735	Romance Linguistics	3

3. Field Component: 3

The remaining three semester hours will consist of a supervised field experience in the teaching of one of the modern languages. The field experience may be arranged according to one of the following options:

(a) Dade County Public Schools;

(b) private school;

(c) adult or community college education;

(d) adjunct teaching at the University. All arrangements for field experience must be approved by the advisor.

Graduation Requirements: To receive the Master of Science Degree with a sub-specialty in Second Language Education, Modern Language track, the student must complete the required 30 of coursework with a 'B' average or higher.

Music Education

Degree: **Master of Science**
Required Program: (36 semester hours)

ESE 6215	Secondary School Curriculum	3
or		
EDE 6205	Curriculum Design for Childhood Education	
EDF 5481	Analysis and Application of Educational Research	3
MUE 6349	Methodology of Music Teaching	3
MUE 6938	Seminar in Music Education	3
MUH 5375	Twentieth Century Music	3
MUT 5325	Arranging	3
MUG 5105	Advanced Conducting	1
Advisor Approved Electives		17

Physical Education

Presently, the physical education program offers three tracks leading to a Master of Science degree in Physical Education. These are the teacher preparation track, the sports management track, and the exercise physiology track. The latter is designed for those interested in working in a cardiac rehabilitation or corporate fitness setting.

Teacher Education Program

Degree: **Master of Science**

Certification Track
Required Program: (36 semester hours)
Professional Education: (3 semester hours)

EDF 5481	Analysis and Application of Educational Research	3

Area of Specialization: (21 semester hours)

PET 5216	Sports Psychology	3
PET 5238C	Perceptual Motor Learning	3
PET 5256C	Sociology of Sport	3
PET 5606	Sports Medicine	3
PET 5436	Physical Education Curriculum in Elementary School	3
PET 6597	Survey of Research in Physical Education	3
PET 6932	Seminar in Physical Education	3
PET 4510	Evaluation in Physical Education	3
RED 6336	Reading in the Secondary School[1]	3
Electives		6

[1] Students who have already met the Reading Requirement as undergraduates or through approved in-service education may substitute an elective for this course.

Exercise Physiology Specialization
The graduate specialization in exercise physiology is designed to prepare individuals to work in the fields of exercise testing in a supervisory capacity and in cardiac rehabilitation as a designer of exercise rehabilitation programs.

The programs will focus on the physiological effects of exercise and training with application to the improvement of health and functional capacity of hospitalized and non-hospitalized individuals with heart disease. The program will emphasize the role of exercise in diagnosis, prevention, and rehabilitation of heart disease.

The program will enable students to develop the competencies required by the American College of Sports Medicine for certification as an Exercise Specialist. Provisions will be made to enable those students entering the program without an Exercise Test Technologist Certification to develop those prerequisite competencies.

Admission Requirements: An applicant for admission to graduate study must meet the existing criteria set forth by the Florida Board of Regents. Presently, these are a 3.0 GPA in the third and fourth year of the undergraduate program, or a combined score of 1000 on the GRE (verbal and quantitative sections), or completion of a master's degree program at an accredited university. All applicants must submit a GRE test score.

Prerequisite Classes: One class in each of the following areas: exercise physiology, kinesiology or applied anatomy, physiology, and nutrition.

Required Program: (24-30 semester hours)

PET 5387	Exercise Test Technology[1]	3
PEP 5115	Fitness Instructor[1]	3
PEP 5116	Exercise Specialist	3
PET 5606	Sports Medicine	3
PET 5369	Internship in Exercise Physiology: Graduate[2]	1-6
APB 4240	Human Systemic Physiology	3
or		
PCB 5205	Cell Physiology and Biophysics	
or		
BCH 5316	Biochemistry II	
or		
An approved alternative in physiology or biochemistry		
HUN 4403	Life Cycle Nutrition	3
or		
An approved alternative in nutrition		
HSC 5515	Statistical Methods for Health Services	3
or		
STA 5206	Design of Experiments	
or		
An approved alternative in research		
PET 5906	Independent Study	3
Electives[3]		3-15

[1] Students with ACSM certification or related course work will not be required to take these classes.

[2] The number of internship hours required will be based on the student's job related experience. This requirement may be waived for students with appropriate job-related experience.

[3] The student will be required to complete an additional 1-9 credits of electives. The electives will permit the student to develop an individualized program of studies under the supervision of an advisor. Each student will be expected to develop a program of studies which will prepare him or her for long term career goals.

Sport Management (non-certification track)
The purpose of this track is to provide an option for persons seeking a master's degree in an allied (non-teaching) career in physical education. This degree program would primarily be for persons who do not presently hold Florida teaching certification credentials. Consequently, completion of this degree would not provide such teacher certification for the degree recipients. Examples of potential student clientele would include all foreign and American college graduates with bachelor's degrees in physical education, sports science, business, recreation, and other related areas.

Admission Requirements: Students must hold a bachelor's degree form an accredited university. The published university requirements for admission into the master's degree programs must be met. Students who do not have an undergraduate major in physical education or a related area are responsible for meeting the prerequisites for any course listed in the program's curriculum. A program advisor must be consulted regarding complete degree requirements.

Required Program: (33 semester hours)

EDF 5481	Analysis and Application of Educational Research	3
PET 5216	Sports Psychology	3
PET 5256C	Sociology of Sport	3
PET 5606C	Sports Medicine	3
PET 6944	Supervised Field Experience[1]	3-6
PET 5936	Special Topics: Sport Management	2-4
PET 5416	Sports Administration and Management	3

[1] An internship in an appropriate sport agency or business will be required.

Advised Electives: (8-13 semester hours)
With the prior approval of the program advisor, students must elect at least nine credits from a variety of courses to build a specialized degree program based on long-term career goals. With approval from the appropriate department, examples of electives would include, but not limited to, graduate courses from such areas as business, management, public administration, parks and recreation administration, nutrition, psychology, sociology, and physical and occupational therapy.

Reading

The Master of Science in Reading develops competencies in diagnosis and remediation, teaching of reading K to 12, and administration and supervision of remedial, corrective, developmental, and content area reading programs. The graduate is competent to take leadership in improving reading instruction and preventing reading failure in the schools.

Requirements for admission to the Master's program in Reading Education are completion of an appropriate undergraduate teacher education program, satisfactory scholastic aptitude, as determined by the graduate admission standards a GPA 3.0 or 1000 on the GRE; applicants are required to submit GRE scores. Applicants must have taught for a minimum of three years prior to receiving the Master's degree in Reading.

Degree: **Master of Science**

Standard Track

This master's track is designed to meet the needs of students interested in reading assessment and instruction. This track and the thesis track both lead to State certification.

Required Program: (36 semester hours)

EDE 6205	Curriculum Design for Childhood Education	3
EDF 5432	Measurement and Evaluation in Education	3
EDF 5481	Analysis and Application of Education Research	3
RED 6155	Instruction in Reading	3
RED 6515	Programs of Remediation in Reading	3
RED 6546	Diagnosis of Reading Difficulty	3

Psychology, Sociology, or Anthropology course (consult advisor 4000-level course or higher) 3

Specialization Courses: Courses to be selected from among Reading or Language Arts course listings, in consultation and with approval of advisor 15

Thesis Track

This master's track is designed to meet the needs of students interested in pursuing independent research and provides a special foundation for doctoral degree program entrance. Admission requirements for this program are the same as for the regular Master's degree program.

Required Program: (36 semester hours)

EDE 6205	Curriculum Design for Childhood Education	3
EDF 5432	Measurement and Evaluation in Education	3
EDF 5481	Analysis and Application of Educational Research	3
RED 6155/ RED 6305	Instruction in Reading	3
RED 6515	Programs of Remediation in Reading	3
RED 6546	Diagnosis of Reading Difficulty	3
RED 6747	Research in Reading	3
RED 6931	Seminar in Reading Education	3

Psychology, Sociology, or Anthropology course (consult advisor) 3

RED 6971	Thesis in Reading Education	6

Specialized Courses: One course to be selected from among the course listing in reading education 3

Science Education

Degree: **Master of Science**

Required Program: (33 semester hours)

EDF 5481	Analysis and Application of Educational Research	3
ESE 6215	Secondary School Curriculum	3
SCE 6635	Teaching Science in the Secondary School	3
SCE 6933	Seminar in Science Education	3

Teaching Field 12

Biology or Chemistry or Physics or Courses from the following areas with approval of advisor: Biology, Chemistry, Physics, Geology, and Environmental Sciences. (For Junior High Science Teachers)

Advisor Approved Electives 9

Social Studies Education

Degree: **Master of Science**

Required Program: (33 semester hours)

SSE 6633	Teaching Social Studies in the Secondary School	3
ESE 6215	Secondary School Curriculum	3
EDF 5481	Analysis and Application of Educational Research	3
SSE 6939	Seminar in Social Studies Education	3

Teaching Field: Social Studies, Social Science, History 12

Advisor Approved Electives: 9

Special Education

The Division offers master's degree programs that prepare individuals to teach exceptional children and youth. Emphasis is given to the development of skills in assessment, prescriptive programming, behavior management, consultant and group leadership skills.

Program applicants are required to submit an application to the Office of Admissions. All applicants must present GRE scores for the Verbal and Quantitative sections, three letters of recommendation (at least one from academic sources and one from work or volunteer experience), and an autobiographical statement. Candidates are admitted by action of the Division's Graduate Admissions Committee. Criteria for program acceptance include GRE scores, undergraduate grade point average during the junior and senior years, work and volunteer experience, quality and source of letters of recommendation, and the candidate's career aspirations and goals. A combined Verbal-Quantitative GRE score of 1000 or GPA of 3.0 or higher, during the undergraduate junior and senior years is required for a candidate to be admitted via regular procedures. Where these criteria are not met, candidates may be admitted by special action of the Division's Graduate Admissions Committee and the Dean's Office.

Programs are offered in Exceptional Student Education: Diagnostic Teaching (Mental Retardation, Emotionally Handicapped, and Specific Learning Disabilities). All programs preparing school personnel are approved by the State of Florida and allow students completing the program to be eligible for certification by the State. Courses leading to certification in the areas of the Gifted are also offered.

Applicants to the diagnostic teaching program are required to hold a valid Florida Teaching Certificate in any area of instruction. Individuals who do not hold Florida certification can become eligible for admission if they complete all coursework required for a teaching certificate in any area of education. After completing these courses, such individuals would fulfill an internship in a setting related to this program when their advisor feels they have completed sufficient coursework and experiences in the education of exceptional students. Students not holding a Florida Teaching Certificate may opt instead to complete a second bachelor's degree in Special Education Exceptional Student Education: Diagnostic Teaching.

The major competencies of the diagnostic teacher are an extension and refinement of those developed by the student in the undergraduate special education curriculum: a) Assessment of learning styles through observation and on-going monitoring techniques; b) application of behavioral approaches to the building, monitoring and remediation of classroom behavior; c) communication of information concerning children to others within the school and to parents, consultation skills; d) curriculum planning and innovation including staffings and IEP; e) supervision of special education units including skill in program evaluation.

Professional Certificate programs are available in a number of specialized areas. Consult the program faculty for further information.

Degree: **Master of Science**

In-Field Majors

The following program of study is for the student who holds an undergraduate degree in Special Education from Florida International University. A student with an undergraduate major in Special Education from another institution must plan a program with an academic advisor to ensure having the entry skills for this program.

Required Program: (36 semester hours)

EDF 5481	Analysis and Application of Educational Research	3
EEX 6050	Curriculum Planning and Development	3
EEX 6227	Assessment of Behavior	3
EEX 6211	Educational Assessment	3
EEX 6535	Seminar in Special Education: School Administration	3
EMR 6852	Advanced Theory and Practice: Mental Retardation	3
ELD 6323	Advanced Theory and Practice: Specific Learning Disabilities	3
EED 6226	Advanced Theory and Practice: Emotional Handicaps	3
EEX 6846	Diagnostic Teaching: Advanced Practicum	3

Electives: With consultation of advisor including: 9

EEX 5771	Independent Living and the Handicapped
EEX 5250	Reading for Exceptional Learners

Out-of-Field Majors

A student eligible for or holding a teaching certificate in other areas of education should consult with an academic advisor for evaluation of entry competencies to the program. If entry competencies cannot be demonstrated either on the basis of course equivalents or work experience, the student will be asked to complete one or more of the following courses in addition to those listed above for In-Field Majors.

Required Program: (36 semester hours)

EEX 3221	Assessment of Exceptional Children	3
EMR 4251	Educational Planning for the Mentally Retarded	3
or		
ELD 4240	Educational Planning for Specific Learning Disabilities	
or		
EED 4227	Educational Planning for Emotionally Handicapped	
EEX 6051	Exceptional Children and Youth	3
EEX 4601	Behavioral Approaches to Classroom Learning	3
EEX 4611	Behavioral Analysis II	3
EEX 6106	Diagnostic Teaching: Acquisition of Language and Reading Skills	3
EEX 4861	Student Teaching	12
Electives (with consultation of advisor)		6

Doctoral Programs

Curriculum and Instruction

The doctoral program in Curriculum and Instruction offers specialties in the following areas: Art Education, Early Childhood Education, Elementary Education, English Education, Exceptional Child Education, Instructional Leadership, Mathematics Education, Music Education, Reading Education, Science Education, and Social Studies Education.

Applicants to the program must have a 3.25 GPA, a combined GRE score of 1000 on the verbal and quantitative sections, and must provide three letters of recommendation. Final decisions on admission are made by the Faculty Admissions Committee. Additional information can be obtained from the Division of Curriculum and Instruction in DM 284.

Core Courses: (15 semester hours)

EDG 7222	Curriculum: Theory and Research	3
EDG 7362	Instruction: Theory and Research	3
EDG 7665	Seminar in Curriculum	3
EDF 7934	Seminar in Social Foundations of Education	3
EDF 6211	Psychological Foundations of Education	3

Specialty Area: (36 semester hours)

The specialty areas are art education, early childhood education, elementary education, English education, instructional leadership, mathematics education, music education, reading education, science education, and social studies education.

Cognate Area: (18 semester hours)

The cognate area requires a minimum of 18 semester hours of course in a single area of study related to the specialty. The courses should be chosen with regard to coherence and relevance to the anticipated substantive aspect of the dissertation and in consultation with the advisor. The cognate area may be taken in the other division of the College of Education, in the College of Arts and Sciences, or any other area offering courses relevant to the student's program.

Research and Statistics: (12 semester hours)

Required Courses

EDF 5481	Analysis and Application of Research	3
EDF 6486	Research Methods in Education: Design and Analysis	3
STA 5166	Statistical Methods in Research I	3
One of the following:		
EDF 6403	Quantitative Foundations of Educational Research	3
or		
EDF 6475	Qualitative Foundations of Educational Research	

Comprehensive Examinations and Advancement to Candidacy:

The student must successfully pass comprehensive examinations covering coursework and also submit copies of a dissertation proposal, which has been approved by the supervisory committee, to the Dean of the School and to the Dean of Graduate Studies.

Dissertation:

The student is responsible for 24 semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in an area of early childhood education, elementary education, secondary education, one of the K-12 areas, or in instructional leadership.

The student is expected to complete the dissertation five years from the date of advancement to candidacy (i.e. successful completion of all written and oral examinations, favorable recommendations of the supervisory and guidance committee, and an approved dissertation proposal). Three credit hours of dissertation are taken per semester during the time that the dissertation is being completed.

EDG 7980	Doctoral Dissertation	24

Exceptional Student Education

The Doctoral Program in Exceptional Student Education offers specialties in the following areas: Administration; Curriculum Development; Teacher Training; Research; and Bilingual Special Education. Students applying for the doctoral program must have a GPA of at least 3.25 and a combined GRE score of at least 1000 on the verbal and quantitative sections, three years of appropriate experience with exceptional individuals, a Bachelor's or Master's Degree in Exceptional Student Education or related area, and must provide three letters of recommendation.

The program components are as follows:

Program Core: (15 semester hours)

EEX 6937	Seminars in Special Education	3
EEX 6208	Medical Aspects of Exceptionality	3
EEX 6301	Research in Cognitive Processes of Handicapped Students	3
EEX 6203	Advanced Psycho-Social Aspects of Exceptionality	3
EEX 6535	Seminar in Special Education School Administration	3

Specialty Area: (30 semester hours)
Exceptional Student Education and/or related area

Cognate Area: (15 semester hours)
The cognate area requires a minimum of 15 semester hours in one of the following career thrusts: special education administrator; special education curriculum specialist; special education researcher; special education teacher-trainer; bilingual special education.

Research and Statistics: (12 semester hours)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6486	Research Methods in Education: Experimental Design and Analysis	3
STA 5166	Statistical Methods I	3
EDF 6403	Quantitative Foundations of Education	3

Computer Education: (6 semester hours)

EME 6405	Computers in the Classroom	3
Course in Computer Education		3
Electives		6

Additional courses in the area of the student's interests as determined by the student and his or her Program of Study Committee .

Comprehensive Examinations and Advancement to Candidacy: The student may be admitted to candidacy for the degree after the following conditions have been met:

a. Residency requirement

b. Successful completion of Comprehensive Examinations

c. Recommendation of the Program of Study Committee

d. Approval of a dissertation topic by the student's Dissertation Committee.

Dissertation: (EEX 7980).
The student is responsible for 24 or more semester hours of dissertation credits. The dissertation must be an original contribution to knowledge in exceptional student education. The student is expected to complete the dissertation within five years from the date of advancement to candidacy.

Teaching English to Speakers of Other Languages (TESOL)

Degree: **Master of Science**

Prerequisite: One course in general linguistics or LIN 3010 or LIN 3013.

Requirements for admission are satisfactory scholastic aptitude as determined by the Graduate Admissions Standards, and evidence of a satisfactory record in the teaching field.

To be admitted into the Master's degree program, a student must: a) hold a bachelor's degree from an accredited university or college; b) have a 'B' (3.0) average or higher in all junior and in senior years course work for the bachelor' degree; or have a combined score (verbal and quantitative) of 1000 or higher on the Graduate Record Examination; or hold a master's degree from an accredited university or college; in any case the student must present a GRE score; c) achieve a score of 220 on the Test of Spoken English; d) in the case of foreign students whose first language is other than English, a score of 500 on the TOEFL examination is also required.

Degree Requirements: The Master of Science degree consists of 30 semester hours. A maximum of six semester hours may be transferred into the program from outside the University, subject to the approval of the major advisor. Also, a maximum of six semester hours of upper division undergraduate courses may be included in the program provided they have not been used to satisfy degree requirements for an undergraduate program.

This program does not meet requirements for initial teacher certification by the Florida Department of Education.

Prerequisite: Introduction to Linguistics is the prerequisite to study in the program. It may be satisfied with LIN 3010 or LIN 3013.

Required Program: (30 semester hours)
Professional Education: (12)
All students will be required to complete 12 semester hours in the College of Education:

EDF 5481	Analysis and Application of Educational Research	3
TSL 5142	Curriculum Development in ESOL	3
or		
ESE 6215	Secondary School Curriculum	
TSL 5371	Special Methods of TESOL	3
FLE 6938	Seminar in Language Testing	3

Program Courses: In consultation with the advisor, students will choose 15 semester hours from among five groups of courses from the Departments of English, Modern Languages, and the College of Education. The student must take one course from each category:

a. LIN 4341 Modern English Grammar 3
b. LIN 5206 Phonetics 3
LIN 5222 General Phonology
SPN 5790 Contrastive Phonology
c. LIN 5342 Advanced Syntax 3
LIN 5805 Semantics
LIN 5331 General Morphology and Syntax
LIN 5405 Contrastive Analysis
d. LIN 5626 Studies in Bilingualism 3
LIN 5602 Language Contact
LIN 5600 Introduction to Sociolinguistics
e. EDG 5707 Cross-Cultural Studies 3
FLE 5908 Individual Studies
LIN 5715 Language Acquisition
LIN 5701 Psychology of Language
LIN 5107 History of the English Language
LIN 5732 Error Analysis

Field Component: The remaining three semester hours will consist of a supervised field experience in the teaching of English to speakers of other languages. The field experience may be arranged according to one of the following options:

1. ESOL in Public Schools;
2. ESOL in adult or community college education, or both;
3. ESOL in private schools or private enterprise;
4. the English Language Institute at the University

All arrangements must be approved by the advisor.

Graduation Requirements: To receive the Master of Science degree in Curriculum and Instruction, with a subspecialty in Second Language Education, TESOL track, the student must complete the required 30 semester hours of coursework with a 'B' or '3.0' average or higher and no more than two 'C' grades in required courses.

Please refer to ESOL certification requirements for add-on certification in ESOL.

Certificate and Add-On Certification Programs
Graduate Professional Certificate Program in Reading and Language Arts The Reading and Language Arts Certificate Program enables teachers to extend their competence in reading and language arts instruction. Completion of the Certificate Program qualifies the teacher to receive Florida State Certification in Reading, grades K-12. Entrance requirements are an introductory reading course, and a 2.75 GPA in the last two years of college work, and two years of college work. Students are required to have completed two years of full-time teaching prior to completing the program. Applicants should apply directly to the Chairperson of the Reading Program.

Prerequisite Course

RED 6155 or RED 6305	Instruction in Reading	3

Required Program

EDF 5432	Measurement and Evaluation in Education	3
LAE 5414	Children's Literature	3
LAE 6355	Instruction in Language Arts	3
RED 6546	Diagnosis of Reading Difficulty	3
RED 6515	Programs of Remediation in Reading	3

Electives[1] Two courses chosen from language-related courses offered outside of the College of Education 6

[1] Elective courses are chosen from an approved list in consultation with a Reading Program advisor.

Professional Certificate Program in Specific Learning Disabilities, Emotionally Handicapped, and Mentally Handicapped

In order to meet the needs of teachers not wishing to enter a Master's Degree program, but who wish to complete state certification in a sequential and planned program of study, the University has established three Professional Certificate Programs: Specific Learning Disabilities, Emotional Disturbance, and Mentally Handicapped. The entrance requirement is eligibility for or possession of a Florida Teaching Certificate.

In the event a student enrolled in the Professional Certificate Program elects to apply course work taken toward meeting the requirements for a Master of Science Degree, the student will need to follow the regular entrance procedures for the Master's Degree program.

Required Program

Specific Learning Disabilities

EEX 6051	Exceptional Children and Youth	3
EEX 6106	Diagnostic Teaching: Acquisition of Language and Reading Skills	3
EEX 6227	Diagnostic Teaching: Educational Assessment	3
EEX 4601	Behavioral Approaches to Classroom Learning	3
EEX 6211	Assessment of Behavior I	3
ELD 6323	Advanced Theory and Practice: Specific Learning Disabilities	3
ELD 4240C	Educational Planning for Specific Learning Disabilities	3

Emotional Disturbance

EEX 6051	Exceptional Children and Youth	3
EEX 6106	Diagnostic Teaching: Acquisition of Language and Reading Skills	3
EEX 6227	Diagnostic Teaching: Educational Assessment	3
EEX 4601	Behavioral Approaches to Classroom Learning	3
EEX 6211	Assessment of Behavior I	3
EEX 6612	Diagnostic Teaching: Systems and Behavior Models	3
EED 4227C	Educational Planning for Emotional Handicaps	3

Mentally Handicapped

EEX 6051	Exceptional Children and Youth	3
EEX 6106	Diagnostic Teaching: Acquisition of Language and Reading Skills	3
EEX 6227	Diagnostic Teaching: Educational Assessment	3
EMR 4360	Educational Planning for the Mentally Retarded	3
EMR 6852	Advanced Theory and Practice for the Mentally Retarded	3
EEX 5771	Independent Living for the Handicapped	3

Certification in Bilingual Education

Individuals who currently hold or are working toward a teaching certificate in any area of education may receive certification in bilingual education by completing a set of courses in bilingual education, and demonstrating language proficiency both in English and in a language other than English. For admissions and graduation requirements, please refer to the degree program.

Required Course

EDF 5881	Foundations of Bilingual Education	3
EDG 5757	Curriculum Development for Bilingual Programs	3
EDG 5707	Cultural and Cross Cultural Studies	3
FLE 5895	Bilingual Education Teaching Methodologies	3
LIN 5625	Studies in Bilingualism[1]	3

[1] Prerequisite: LIN 3010

The language proficiency instruments (The Test of Spoken English and The Language Proficiency Interview) will be administered at the University on a regularly scheduled basis. Please consult the Director of the Teacher Training Program in Bilingual Education for further information.

These courses can be taken by interested individuals for the purpose of add-on certification only. Requirements for admissions are a valid Florida Teacher's Certificate, a score of 220 on the test of spoken English (TSE), and a score of above 3 on the Language Proficiency Interview (LPI).

Students are also encouraged to take, in addition to their regular program, EGC 6469, Counseling the Culturally Different, and EDF 6444, Non-Biased Assessment of the Culturally Different.

Certification in Gifted Education

Individuals who hold Florida teacher certification in any subject or field, may receive certification for teaching the gifted (Grades K-12) by completing the following courses:

EGI 5051	Nature and Needs of the Gifted	3
EGI 5232	Educational Procedures and Curriculum for the Gifted	3
EEX 6732	Guidance and Counseling of Gifted Students	3

Add-on Certification in ESOL

Individuals who currently hold or are working toward a teaching certificate in any area of education may receive add-on certification in ESOL by completing a set of courses in ESOL, and demonstrating language proficiency in English. For admissions and graduation requirements, please refer to the Degree program.

Required Program

EDF 5881	Foundations of Bilingual Education	3
EDG 5707	Cultural and Cross-Cultural Studies	3
LIN 5625	Studies in Bilingualism[1]	3
TSL 5371	Special Methods of TESOL[1]	3
TSL 5142	Curriculum Development in ESOL	3

[1] Prerequisite: LIN 3010

The language proficiency instrument, (the Test of Spoken English (TSE) will be administered at the University on a regularly scheduled basis. Please consult the Director of the Teacher Training Program in Bilingual Education for further information.

These courses can also be taken by interested individuals for the purpose of add-on certification only. Requirements for admissions are a valid Florida Teacher's Certificate and a score of 220 on the Test of Spoken English.

Students are also encouraged to take, in addition to their regular program, EGC 6469, Counseling the Culturally Different, and EDF 6444, Non-Biased Assessment of the Culturally Different.

Division of Educational Policy and Human Resource Development

Robert Vos, *Associate Professor, Technical Education, Vocational Education, and Chairperson*

Carlos, M. Alvarez, *Associate Professor, International Development Education*

Rosemere Baum, *Associate Professor, Home Economics Education, Vocational Education*

Curtis H. Bradley, *Professor, Vocational-Industrial Education*

John A. Carpenter, *Professor, Educational Foundations, Educational Leadership*

Peter J. Cistone, *Professor, Educational Leadership*

Joseph B. Cook, *Professor, Community College Teaching*

Myrna P. Crabtree, *Professor, Home Economics Education, Vocational Education*

Miguel Escotet, *Visiting Professor (Courtesy), International Development Education/Educational Psychology*

Charles Divita, Jr., *Professor, Adult Education and Human Resource Development*
Allen Fisher, *Associate Professor, Educational Leadership*
Paul D. Gallagher, *Associate Professor, Educational Research, and Acting Vice President, Business and Finance*
Marisal Gavilan, *Associate Professor, Educational Psychology/Bilingual Education*
Lorraine R. Gay, *Professor, Educational Research*
Barry Greenberg, *Professor, Educational Research, Community College Teaching*
James A. Hale, *Professor, Educational Leadership*
A. Dean Hauenstein, *Professor, Industrial Arts Education, Vocational Education*
Daniel A. Kennedy, *Associate Professor, Educational Psychology/School Counseling*
Philip J. Lazarus, *Associate Professor, Educational Psychology/School Psychology*
Dominic A. Mohamed, *Associate Professor, Vocational Administration and Supervision, Vocational Education*
Sarah W. J. Pell, *Associate Professor, Educational Leadership*
Janice R. Sandiford, *Associate Professor, Health Occupations Education, Computer Education, Vocational Education, and Assistant Dean*
Donald C. Smith, *Professor, Educational Psychology/School Psychology*
Douglas H. Smith, *Associate Professor, Adult Education and Human Resource Development*
G. Wesley Sowards, *Distinguished Professor, Educational Leadership*
Robert F. Testa, *Associate Professor, Educational Foundations, Music Education*
Jethro W. Toomer, *Professor, Educational Psychology/Community Counseling*
George Vanover, *Associate Professor, Business Teacher Education and Director, Teacher Education Center*
Robert S. Winter, *Associate Professor, International Development Education and Director of Student Affairs*
Robert M. Wolff, *Associate Professor, Parks and Recreation Management and Assistant Dean for Administration*
William F. Younkin, *Instructor (Courtesy), Educational Research*

The Division's general focus is on preparing a select group as teachers, educational planners and managers, psychological services personnel for professional positions in public and private schools, business and industry, colleges and universities, community service and governmental agencies, health and social service organizations, and a host of other non-school based entities which offer education and training programs and require skilled educational personnel. The Division offers a host of undergraduate majors, graduate majors, certification and certificate programs designed to prepare and enhance the skills of such personnel.

The Division offers undergraduate preparation leading to the degree of Bachelor of Science with specialized majors in the following areas:

Business Teacher Education
Health Occupations Education
Industrial Arts Education
Parks and Recreation Management
Post-Secondary Technical Education
Vocational Home Economics Education
Vocational Industrial Education

Programs are designed for entry into the field of public education, or employment in business, industry, and other private or public agencies.

Applicants for admission are required to have an associate degree or equivalent course work. For specific entrance requirements, consult the general admission statement for undergraduate students in this catalog. Because of the wide range of entry level competencies and career goals, each student in consultation with his or her advisor is required to plan a program of study during the first semester of enrollment.

Business Teacher Education

Degree: **Bachelor of Science**

Lower Division Preparation
Required Technical Preparation
Business machines, advanced courses in typewriting, word processing, shorthand, and office practice or secretarial procedures. Students should complete as much of the following as possible at the community college or its equivalent course work from another four-year college or university with the remainder to be taken at the University. Six semester hours in accounting, six semester hours in economics, two semester hours in business English, and two semester hours of business law.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (65-74 semester hours)
Professional Education (47-56)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
or		
EDF 3542	Philosophy of Education	
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Laboratory Reading	3
EVT 3065	Foundations of Vocational Education	3
EVT 4949	Supervised Occupational Experience[1]	3-9
BTE 3068	Principles of Business Education	3
BTE 4360	Special Teaching Lab: Business Education Non-Skills	3
BTE 4364	Special Teaching Lab: Business Education Skills	3
BTE 4944	Special Teaching Lab: Business Education Practicum	3
BTE 4945	Student Teaching in Business Education	9

Business Administration: (12)
Recommended Courses

MAN 3025	Organization and Management	3
MAN 3023	Marketing Management	3

Advised Electives: Six semester hours in Business Administration selected in consultation with program advisor 6

Electives: Electives are recommended either in the College of Education or the College of Business Administration, and in consultation with the program advisor. 6

[1] To be a certified vocational business teacher, one must have one year (or its equivalent) of office work experience. Supporting letters from former employers are required. EVT 4949 may be taken to meet the work experience requirement.

Health Occupations Education

Degree: **Bachelor of Science**

Lower Division Preparation
Required Technical Preparation: Occupational preparation in the student's intended area of teaching such as nursing, dental, medical technology, respiratory therapy, radiology technology, and other allied health related occupations requiring training beyond the secondary school and licensure in occupational area when applicable.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (62-71 semester hours)
Professional Education (32-41)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
or		
EDF 3542	Philosophy of Education	
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Lab I Basic Teaching Skills	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Lab II Human Relations Skills	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Lab-Reading	3
EVT 3065	Foundations of Vocational Education	3

or		
EVT 5078	Technical Education in American Society	
EVT 3165C	Course Planning in Vocational Education	3
EVT 3367	Tests and Measurements in Vocational Education	3
EVT 4949	Supervised Occupational Experience[1]	3-9

[1] For the student who lacks acceptable occupational experience in the area to be taught. Not to be counted in the upper division 60 hours minimum required for graduation.

Specialization Area Requirements (18)

EVT 4310	Planning and Operating HOE Programs	3
EVT 4311C	Special Teaching Lab	3
EVT 4312	Instructional Strategies and Evaluation in HOE Programs	3
EVT 4941	Student Teaching in Health Occupations Education Programs	9

Electives should be taken to equal a minimum of 60 semester hours.

A graduate ADE seminar	1
Additional coursework	11

Industrial Arts Education

Degree: **Bachelor of Science**

Lower Division Preparation

Required Technical Preparation: With reference to the technical preparation outlined below, the student is encouraged to take basic courses in each area in the lower division.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)
Professional Education: (33)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Lab I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Lab II	3
RED 4325	Special Teaching Lab Reading	3
EVT 3165C	Course Planning in Vocational Education	3
EIA 4360	Instruction in Industrial Arts	3
EIA 4941	Student Teaching: Industrial Arts Education	9

Advised Electives: The candidate will be encouraged to select professional electives on the basis of individual needs and career goals for a total of 33 semester hours of professional education.

Technical Preparation: (27)
Required: A minimum of 27 semester hours are required for certification, with a minimum of six semester hours in each of the following areas:

Construction[1]

BCN 3210	Construction Materials	3
BCN 3240L	Construction Methods and Equipment	3
BCN 4254C	Building Construction Drawing	3

Manufacturing[1]

ETI 3411	Manufacturing Processes	3
ETI 4421C	Materials Processing	3
EGN 1120	Engineering Drawing	3
or		
ARC 3127	Graphic Communication	
ETM 4823C	Materials of Industry	3
ETI 4470L	Industrial Research and Development	3

Power[1]

ETM 4407L	Mechanical Power Systems I	3
ETE 4562	Electrical/Electronics Systems	3
ETE 3030	Survey of Electronics	3
ETM 4408	Mechanical Power Systems II	3

Graphics[2]	6-9
Advised Electives	

Enough electives should be taken to equal a minimum of 60 semester hours.

[1] Course substitutions may be made in consultation with program advisor.

[2] Consult Program Advisor

Parks and Recreation Management

Degree: **Bachelor of Science**

The Parks and Recreation undergraduate curriculum offers professional preparation programs designed to prepare students for employment in a variety of work settings which have as their goals and objectives employment in a leisure service delivery system. The program is oriented towards supervisory, lower management employment opportunities.

A student may elect to gain competencies in Park Management, Recreation Management, or Parks and Recreation Management.

Lower Division Preparation
To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)
Required Core Courses: (39)

HFT 3403	Management Accounting for the Hospitality Industry	3
LEI 3524	Personnel Management in Parks and Recreation	3
LEI 3542	Principles of Parks and Recreation Management	3
LEI 3630	Care and Maintenance of Grounds	3
LEI 4590	Seminar in Parks and Recreation	3
LEI 4940	Internship I	9
LEI 4941	Internship II	12
MAN 3025	Organization and Management	3

Parks Management Emphasis: (14)

ARC 4354	Construction and Design of Natural Recreation Areas	3
BOT 3823	Horticulture	3
LEI 3624	Turf Grass Management	3
PCB 3043	Fundamentals of Ecology	3
PCB 3043L	Fundamentals of Ecology Laboratory	2
Advised Electives		7

Behavioral Science (3)
Communication Skills (4)

Recreation Management Emphasis: (9)

LEI 3437	Program Development in Parks and Recreation Management	3
LEI 4700	Programming for Special Populations	3
POS 3153	Urban Politics	3
Advised Electives		12

Behavioral Science (6)
Communication Skills (6)
Parks and Recreation Management Emphasis
Students selecting this emphasis would take required core courses and any combination from the above concentrations.

Post-Secondary Technical Education

Degree: **Bachelor of Science**

Lower Division Preparation

Required Technical Preparation: Technical preparation in the student's intended area of teaching such as electronics technology, architectural technology, commercial art, electronic data processing, electro-mechanical technology, and other occupations requiring training beyond the twelfth grade or demonstration of competency via EVT 4990 listed below.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)
Professional Education: (50-56)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3

EDF 3723	Schooling in America	3
EVT 5078	Technical Education in American Society	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
ADE 5385	Adult Teaching and Learning	3
EDG 3322	General Teaching Laboratory II	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Laboratory-Reading	3
EVT 3165C	Course Planning in Vocational Education	3
EVT 4949	Supervised Occupational Experience[1]	3-9
or		
EVT 4990	Credit by Examination	3-9
EVT 5369	Educational Media	3
EVT 4940	Special Teaching Laboratory Technical Education	3
EVT 4941	Student Teaching: Technical Education	9

[1] For the student who lacks acceptable occupational experience in the area to be taught.

Advised Electives: Science, mathematics, technology, psychology, or sociology. 6

Free electives: Enough upper division electives should be taken to equal a minimum of 60 semester hours.

Vocational Home Economics Education

Degree: **Bachelor of Science**

Lower Division Preparation

The student is required for certification to have 39 semester hours in the areas listed below under Technical Preparation. These may be earned in courses in both the lower and upper divisions. It is recommended that students take at least one basic course in each of the subject areas (Technical Preparation), if these are available at the lower division level.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)

Professional Education: (41)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Lab: Reading	3
HEE 3302	Home Economics Educational Planning	3
HEE 4104	Instruction in Vocational Home Economics	3
HEE 4944	Special Teaching Laboratory: Home Economics Education	3
HEE 4941	Student Teaching: Home Economics Education	9

Technical Preparation: Total of 39 semester hours needed from lower and upper division: 39

Housing and Home Furnishings[1]	6
Management and Family Economics[1]	6
Family and Child Development[1]	9
Food and Nutrition[1]	9
Textiles and Clothing[1]	9

[1] Technical preparation courses are offered in the Colleges of Education, Arts and Sciences, Engineering and Applied Sciences, and the Schools of Health Sciences and Hospitality Management.

Vocational Industrial Education

Degree: **Bachelor of Science**

Lower Division Preparation

Evidence of appropriate occupational experience (as per Section 42, Florida State Teacher Certification Guide) must be presented prior to being admitted to the Vocational Industrial Education Bachelor of Science degree program. To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60 semester hours)

Professional Education: (56-62)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
or		
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Lab-Reading	3
EVT 3065	Foundations of Vocational Education	3
EVT 3161	Instructional Materials in Vocational Industrial Education	3
EVT 3165C	Course Planning in Vocational Education	3
EVT 3367	Testing and Measurements in Vocational Education Subjects	3
EVT 3815C	Vocational Education Laboratory Management and Safety	3
EVT 4949	Supervised Occupational Experience	3-9
or		
EVT 4990	Credit by Examination	3-9
EVT 5369	Educational Media	3
EVT 4940	Special Teaching Laboratory: Vocational Industrial Education	3
EVT 4941	Student Teaching Vocational Industrial Education	9
Advised Electives		6
SYP 4421	Man, Society, and Technology	
or		
SYO 4360	Industrial Sociology	3
or		
INP 3001	Industrial Psychology	
or		
An appropriate course taken in consultation with the program advisor		3

Electives: Enough electives should be taken to equal a minimum of 60 semester hours.

Graduate Programs

The Division of Educational Policy and Human Resource Development offers a wide range of graduate programs leading toward the Master of Science and Doctor of Education degrees. Graduate Programs are available in the following fields of study:

Master's Programs

Adult Education
Public School Administration
Human Resource Development (HRD)
Educational Leadership
Educational Psychology
Community Counseling
School Counseling
School Psychology
International Development Education
Parks and Recreation Management
Vocational Education
Administration and Supervision
Business Education
Health Occupations Education
Home Economics Education (non-School based)
Industrial Arts Education
Technical Education
Vocational Home Economics Education
Vocational Industrial Education

Doctoral Programs

Adult Education and Human Resource Development
Community College Teaching
Educational Leadership
Adult Education

The Graduate Program in Adult Education and Human Resource Development is designed for the individual who chooses to serve as learning facilitator, training director, counselor, administrator, curriculum developer and/

or researcher in adult education and human resource development programs in business and industry, public schools, hospitals, governmental agencies, community colleges, universities, civic organizations, military service, or other agencies. Graduate programs of study are designed in relation to an individual's specific interests, needs, and career goals.

The Division offers two master's degree programs in Adult Education: Administration and Supervision, and Adult Education: Human Resource Development. Two options are possible in the Administration and Supervision program: (1) Public School Administration (which leads to Florida Rank II certificate), or (2) General Adult Education Administration/Non-Public School Administration (not a certification program).

Adult Education: Human Resource Development is designed for persons interested in the design, implementation, evaluation, and management of human resource development programs. One half (15 hours) of the program is required, and the other half consists of elective courses selected by the advisor in relation to the student's career goals.

Adult Education: Administration and Supervision

(Only for public school adult educators)
Degree: **Master of Science**

Required Program: (30 semester hours)
Required Core: To be selected with an advisor from the following:

ADE 5081	Introduction to Adult Education and Human Resource Development	3
ADE 5180	Organizational/ Community Processes in AE/HRD	3
ADE 5260	Organization and Administration of Adult Education and HRD Programs	3
ADE 5385	Adult Teaching and Learning	3
EDF 5481	Analysis and Application of Education Research	3
RED 6336	Teaching Reading in the Content Area	3

Area of Professional Emphasis: (12)

EDA 6061	Introduction to Educational Leadership	3
EDG 6250	Curriculum Development and Improvement	3
EDS 6050	Supervision and Staff Development	3
Elective		3

Adult Education: Human Resource Development (HRD)

Degree: **Master of Science**

Required Program: (30 semester hours)
Required Core: (15)

ADE 5081	Introduction to Adult Education and Human Resource Development	3
ADE 5180	Organizational Community Processes in AE/HRD	3
ADE 5383	Instructional Processes in AE/HRD	3
ADE 5385	Adult Teaching and Learning	3
EDF 5481	Analysis and Application of Education Research	3
Electives		15

The candidate, with the approval of the advisor, will select courses that will increase competence in a teaching specialty or a supportive social/behavioral science.

Educational Leadership

Degree: **Master of Science**

The Master of Science degree in Educational Leadership is awarded on successful completion of all program requirements. The program consists of courses and experiences designed to develop entry level competencies for persons who are seeking a Florida certificate in Educational Leadership. The curriculum consists of the Florida Educational Leadership Core which contains competencies identified in the eight domains of effective school leadership. Also included are competencies for high-performing principals identified by the Florida Council on Educational Management. Specialized experiences in selected areas of school leadership corresponding to career aspirations of the candidate are reviewed. Topics specific to non-public school administration may also be elected.

Admission to the program requires that the candidate meet criteria established by the Board of Regents for graduate study and other criteria established by the program faculty.

To become certified in Educational Leadership, effective September 1, 1987 all candidates who have successfully completed the Florida Educational Leadership Core must pass the State of Florida Educational Leadership Certification Examination.

Required Program: (36 semester hours)

EDA 6061	Introduction to Educational Leadership	3
EDS 6115	School Personnel Management	3
EDG 6250	School Development	3
EDA 6232	School Law	3
EDA 6242	School Finance	3
EDA 6503	Principalship	3
EDA 6930	Seminar in Educational Leadership	3
EDF 5481	Analysis and Application of Educational Research	3
Guided Electives		12

Elective courses must include approved work in administrative applications of computers and in communications in education. Six semester hours must be earned in one of the following areas: Early Childhood, Middle School, Secondary School, Exceptional Student, Vocational Education and/or Adult Education.

Educational Psychology

Programs within the field of Educational Psychology are designed to train professionals to meet the unique needs of individuals who experience cognitive, academic, and/or social-emotional difficulties that interfere with the individual's progress in school and in the community. Specific competencies are delineated for professionals in the field of school counseling, community counseling, and school psychology.

These programs emphasize the blending of research and theory with practical applied experience. They consider the urban, multicultural nature of the community, as well as more general trends within specific fields. All programs involve extensive field work with accompanying seminars. Independent study courses are available to allow students to pursue specialized interests and needs.

Program applicants are required to submit an application to the Office of Admissions. All applicants must present GRE scores for the Verbal and Quantitative sections, three letters of recommendation (at least one from academic sources and one from work or volunteer experience), and an autobiographical statement. Candidates are admitted by action of the Division's Graduate Admissions Committee. Criteria for program acceptance include GRE scores, undergraduate grade point average during junior and senior years, work and volunteer experience, quality and source of letters of recommendation, and the candidate's career aspirations and goals. A combined Verbal-Quantitative GRE score of 1000 or GPA of 'B' or higher during the undergraduate junior and senior years, or both, are required for a candidate to be admitted via regular procedures. Where these criteria are not met, candidates may be admitted by special action of the Division's Graduate Admissions Committee and the Dean's Office.

All programs preparing school personnel are approved by the State of Florida and allow students completing the program to be eligible for certification by the State.

Counselor Education

The program in counselor education requires 60 semester hours, or the equivalent of four academic semesters, and leads to the Master of Science degree. The program follows a competency based model, the early part of which is largely generic in nature and is concerned with the development of knowledge and skills in the areas of individual and group counseling, consultation, preventive mental health, educational-vocational development, client appraisal, systems intervention, and model program organization and evaluation. The latter part of the program is more differentiated, and enables a specialization in either community or school counseling. Both areas of specialization meet the standards recommended by the American Association for Counseling and Development and specialization in school counseling qualifies the program graduate for the Florida School Guidance Certificate. The Community Counselor curriculum meets the master's degree requirement for eligibility towards licensure as a mental health counselor by the State of Florida.

The prospective student should be advised that during the latter part of the program a substantial amount of time is spent in field work to meet practicum and internship requirements. The practicum requirement is the equivalent of one work day per week spent in a field placement during one academic semester followed by an internship consisting of a forty hour work week in a field placement for the duration of one academic semester. The student should plan for this field work to be during the day, rather than during evening hours. All students entering the graduate program in School Counseling with an undergraduate degree in an area other than education must enroll for courses in general professional education as well as a course in reading required by the Florida State Department of Education in order to meet state certification requirements in Florida.

The student should consult his or her advisor with reference to these course selections.

Community Counseling Program

Degree: **Master of Science**

Required Program: (60 semester hours)
First Year: (27)

EGC 6605	Professional Problems in Pupil Personnel Services	3
EGC 5405	Introduction to Counseling	3
EGC 6725	Human Interaction I	3
EGC 6707	Applied Behavioral Analysis in Education	3
EGC 6726	Human Interaction II	3
EDF 5481	Analysis and Application of Educational Research[1]	3
EGC 6708	Advanced Counseling and Consultation: Theory and Practice	3
EGC 6203	Appraisal and Measurement in Counseling	3
EGC 5305	Educational and Vocational Guidance	3

Second Year: (33)

EGC 6616	Program Evaluation in Psycho-Educational Services	3
EGC 6822	Advanced Practica in Counseling and Consultation	3
EGC 6676	Supervised Field Experience in Pupil Personnel Services	10
EGC 6709	Organizational Consultation: Human Interaction III	3
EGC 6936	Seminar in Pupil Personnel Services	3
EGC 6469	Counseling the Culturally Different	3
Electives and Independent Study		8

School Counseling Program

Degree: **Master of Science**

Required Program: (60 semester hours)
First Year: (27)

EGC 6605	Professional Problems in Pupil Personnel Services	3
EGC 5405	Introduction to Counseling	3
EGC 6725	Human Interaction I	3
EGC 6707	Applied Behavioral Analysis in Education	3
EGC 6726	Human Interaction II	3
EDF 5481	Analysis and Application of Educational Research[1]	3
EEX 6051	Exceptional Children and Youth	3
EGC 6203	Appraisal and Measurement in Counseling	3
EGC 5305	Educational and Vocational Guidance	3

Second Year: (33)

EGC 6616	Program Evaluation in Psycho-Educational Services	3
EGC 6708	Advanced Counseling and Consultation: Theory and Practice	3
EGC 6822	Advanced Practica in Counseling and Consultation	3
EGC 6676	Supervised Field Experience in Pupil Personnel Services	10
EGC 6469	Counseling the Culturally Different	3
EGC 6936	Seminar in Pupil Personnel Services	3
Electives		8

School Psychology

Degree: **Master of Science**

The program in School Psychology requires 60 semester hours. In general, the competencies to be demonstrated by the student completing this program are derived from the following: behavioral/educational assessment and planning; counseling and child-centered consultation with teachers, parents, and agency representatives; staffing, liaison, referral, and case management; program development and evaluation; in-service education; administrative consultation; and community development.

Required Program: (60 semester hours)

EDF 5481	Analysis and Application of Educational Research	3
EGC 5405	Introduction to Counseling	3
EGC 6725	Human Interaction I	3
EGC 6726	Human Interaction II	3
EGC 6707	Applied Behavioral Analysis in Education	3
EGC 6708	Advanced Counseling and Consultation: Theory and Practice	3
EEX 6227	Diagnostic Teaching: Educational Assessment	3
SPS 6805	Professional Problems and Issues in School Psychology	3
SPS 6191	Psycho-Educational Assessment I: Intellectual	3
SPS 6191L	Psycho-Educational Assessment I: Lab	3
SPS 6192	Psycho-Educational Assessment II: Process	3
SPS 6192L	Psycho-Educational Assessment II: Lab	3
SPS 6193	Psycho-Educational Assessment III: Behavior	3
SPS 6193L	Psycho-Educational Assessment III: Lab	2
EGC 6616	Program Evaluation in Pupil Personnel Services	3
EGC 6678	Supervised Field Experience School Psychology	10
EGC 6936	Seminar in Pupil Personnel Service	3
Electives		3-6

A student with an undergraduate major in education is encouraged to select electives in the social and behavioral sciences. Other students must meet requirements in general professional education.

International Development Education

Degree: **Master of Science**

The Master of Science degree in International Development Education (IDE) is designed to provide graduate training to students interested in acquiring skills as specialists in educational development within the context of a changing society. The program places special emphasis on planning, management, research, and evaluation skills. Such skills are developed in relation to a specific area of educational specialization and with a special emphasis on understanding the influence of the social context of education on educational development and change.

Admission Requirements: To be admitted into the Master's degree program in IDE, a student must: (a) hold a Bachelor's degree from an accredited institution or its equivalent for international students; (b) have a 3.0 GPA or higher during the last two years of upper level work in undergraduate study (or its equivalent for foreign students); and/or (c) have a combined score (verbal and quantitative) of 1000 or higher on the GRE (students must submit the GRE scores regardless of their GPA or degree); and/or (d) have a graduate degree from an accredited institution of higher learning; (e) in the case of foreign students whose first language is other than English, a minimum score of 500 on the TOEFL examination is also required; (f) submit two letters of recommendation, preferably from persons in the academic community who are familiar in the academic community who are familiar with the applicant's record and who are able to evaluate the applicants background, professional interest, and career goals.

Degree Requirements: The Master's program requires the completion of a minimum of 36 semester hours of coursework (including thesis work) at the graduate level completed with a 3.0 GPA. A maximum of six semester hours of graduate work may be transferred to the program from other universities. The 36 semester hours are to be completed in accordance with the program curriculum.

Language Requirement: The student must demonstrate competency in the use of a modern language, other than English, prior to graduation. International students may demonstrate competency in their native language. Language courses will not count for credit toward program completion.

Required Program: (36 semester hours)

Social Context of Education and Development (6)

EDF 5850	International Development Education: Historical and Contemporary Reality	3
EDF 5852	Educational Development Issues in Context: A Multidisciplinary Perspective	3

Educational Research and Evaluation Methods (9)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6486	Research Methods in Education: Experimental Design and Analysis	3
EDF 6475	Qualitative Foundations of Educational Research	3

Educational Policy, Planning, Implementation/Management and Evaluation Skills (12)

EDF 6654	Macro- and Micro-Planning in Education	3
EDF 6651	International Development Education: Educational Technology, Planning and Assessment	3
EDF 6656	International Development Education: Innovative Approaches in Educational Planning	3
EDF 6658	Selected Topics: International Development Education, Current Policy Issues and Problems	3

Electives (6)

The student will select, with appropriate advisor's permission, a minimum of six semester hours from courses available in one of the following areas:

1. A content area of educational specialization;
2. Comparative/Intercultural Education;
3. System's consultation;
4. Socioeconomic and political context of development;
5. Courses in any other area of special interest to the student.

Thesis

EDF 6972	Thesis in International Development Education	3-9

Parks and Recreation Management

Degree: **Master of Science**

The graduate program in Parks and Recreation Management is planned to provide advanced preparation for administrative and supervisory level positions within a leisure services delivery system. The program includes electives which give flexibility regarding an individual's specific career goals as a future practitioner in Parks and Recreation Management .

To enter the program in Parks and Recreation Administration, a student must have a 3.0 GPA in upper division work or score 1000 or higher on the Graduate Record Examination, possess a bachelor's degree, and have appropriate undergraduate preparation in recreation.

Required Program: (30-31 semester hours)

Required Core: (21)

EDF 5481	Educational Research	3
LEI 5440	Program Development in Parks and Recreation	3
LEI 5510	Program Administration in Parks and Recreation	3
LEI 5595	Seminar in Parks, Recreation, and Athletic Management	3
LEI 5605	Physical and Social Bases of Parks and Recreation Planning	3
PAD 6106	Organization Theory and Administrative Behavior	3
PAD 6417	Public Personnel Administration	3

Area of Professional Emphasis: (3-12)

LEI 5907	Individual Study	3
LEI 6922	Supervised Field Experiences in Parks and Recreation[1]	3-9
Advised Electives		6

[1] A student who did not complete an Internship/Field Experience during his or her undergraduate degree curriculum will be required to take LEI 6922. Students with field experience may select advised electives (6 semester hours).

Vocational Education

The Division offers graduate course work leading to the degree of Master of Science in Education in Business Education, Health Occupations Education, Home Economics Education, Industrial Arts Education, Technical Education, Vocational Home Economics Education, Vocational Industrial Education, and Administration and Supervision in Vocational Education.

To be admitted to these programs applicants must hold an appropriate certificate or equivalent and must have an upper division undergraduate GPA of 3.0 or have a combined score of 1000 on the GRE (verbal and quantitative aptitude sections), or for vocational-industrial and technical education programs only, have a combined score of 2250 on the general examination of the 'College Level Examination Program' (CLEP), with a minimum score of 400 on each section. All applicants must submit a GRE score, or where appropriate a CLEP score, even though the GPA may be 3.0 or higher.

Students are urged to contact the Admissions Office or the Division for further information.

Note: Students who have already met the reading requirements as an undergraduate or through in-service education may substitute an elective for RED 6336.

Administration and Supervision of Vocational Education

Degree: **Master of Science**

Admission to the Administration and Supervision program requires adherence to the general standards as specified in the Admission Requirements for Graduate Students in this Division. In addition, an applicant must have completed at least one year of successful teaching experience as a teacher of vocational education classes. To be certified in Administration and Supervision in Vocational Education in Florida, a person must have at least three years of successful teaching experience in one of the vocational education areas. While one year of successful teaching will meet the experience requirement for admission to the master's degree program initially, the three-year teaching experience requirement must have been completed either before or at the same time as degree requirements are completed. Each graduate student, in consultation with the advisor, plans a program of study to include a core of professional competence, an area of emphasis, and electives. The program requires a minimum of 33 semester hours.

Required Program: (33-36 semester hours)

Required Core: (27-30)

EVT 5168	Curriculum Development in Vocational Education	3
EVT 5265	Supervision and Coordination of Vocational Education Programs	3
EVT 5664	Community Relations and Resources for Vocational Education	3
EVT 6264	Administration of Local Vocational Education Programs	3
EVT 6930	Seminar in Vocational Education	3
EDA 6061	The Organization and Operation of the Public School System	3
EDA 6530	The Administration of the Secondary School	3

EDS 6050	Supervision and Staff Development	3
EDG 6250	Curriculum Development	3
RED 6336	Reading in the Content Area[1]	3

Area of Professional Emphasis

EVT 6946	Supervised Field Experience	3

Electives: The candidate may select a course (or courses) that will increase administrative and supervisory competencies 3

[1] Students who have met already the reading requirement as undergraduate or through approved in-service education may substitute an elective in this course.

Business Education

Degree: **Master of Science**

Required Program: (33 semester hours)

Required Core: (12-15)

EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational and Technical Education	3
EVT 6760	Research in Vocational Education	3
EVT 6930	Seminar in Vocational Education	3
RED 6336	Reading in the Content Area[1]	3

Area of Professional Emphasis: (12-15)

BTE 5671	Problems, Issues and Trends in Business Education	3
BTE 5371	Teaching in Business Education Occupational Programs	3
BTE 5774	Teaching Basic Business and Consumer Education	3
or		
BTE 6203	Teaching Word Processing	3
BTE 6905	Directed Independent Study	
or		
BTE 6940	Supervised Clinical Field Experience	3

Electives: The candidate will be encouraged to make selections on the basis of individual needs and career goals. 3-6

[1] Students who have met already the reading requirement as undergraduates or through approved in-service education may substitute an elective for this course

Health Occupations Education

Degree: Master of Science

Required Program: (30 semester hours)

Required Core: (12-15)

EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational Education	3
EVT 6760	Research in Vocational Education	3
EVT 6930	Seminar in Vocational Education	3
RED 6336	Reading in the Content Area[1]	3

Area of Professional Emphasis: (9)

EVT 5315	Improvement of Teaching Strategies in Health Occupations and Nursing Education	3
EVT 5317	Occupational Analysis in Health Occupations and Nursing Education	3
EVT 6318	Issues in Health Occupations and Nursing Education	3
Technical Electives		6

The candidate will be encouraged to select courses that will increase his or her subject area technical competence, career goals, and teaching certification requirements

[1] Students who have met already the reading requirement as undergraduates or through approved in-service education may substitute an elective for this course

Home Economics Education[1]

Degree: **Master of Science**

This track focuses on educational leadership of Home Economists presently employed in non-school educational environments and those preparing for such positions.

Required Program: (30 semester hours)

Required Core: (18)

HEE 5335	Trends in Vocational Home Economics Education	3
HEE 6126	Teaching Home Economics in Diverse Environments	3
ADE 5180	Organizational and Community Processes in AE/HRD	3
EDF 5481	Analysis and Application of Educational Research	3
HEE 6915	Research in Home Economics Education	3
HEE 6937	Seminar in Home Economics Education	3

Area of Professional Emphasis: With Program advisor's approval, students may select courses in Home Economics subject matter based on professional competencies needed. 9

Electives: The candidate in consultation with the advisor will make selections on the basis of individual needs and career goals. 3

[1] This program does not lead to State of Florida Teacher Certification. Admission to this track does not require teacher certification.

Industrial Arts Education

Degree: **Master of Science**

Required Program: (30 semester hours)

Required Core: (15-18)

EVT 5650	Trends and Issues in Vocational Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational and Technical Education	3
EVT 6760	Research in Vocational Education	3
EVT 6930	Seminar in Vocational Education	3
RED 6336	Reading in the Content Area[1]	3

Area of Professional Emphasis: (9-12)

EIA 5811	Equipment and Facilities Planning	3
EIA 6931	Instructional Projects Development	3

The student, under the direction of his or her advisor, may develop professional competencies in an area of emphasis through seminars, methods courses, workshops, or independent study.

[1] Students who have met already the reading requirement as undergraduates or through approved in-service education may substitute an elective for this course

Technical Electives: The student is encouraged to select courses that will increase subject area technical competence. 3-6

Technical Education

Degree: **Master of Science**

Required Program: (30 semester hours)

Required Core: (15-18)

EVT 5650	Trends and Issues in Vocational Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational and Technical Education	3
EVT 6760	Research in Vocational Education	3
EVT 6930	Seminar in Vocational Education	3
RED 6336	Reading in the Content Area[1]	3

Area of Professional Emphasis: (6)

EVT 5078	Technical Education in American Society	3
ADE 5385	Adult Teaching and Learning	3
Technical Electives		6-9

The candidate will be encouraged to select courses that will increase subject area technical competence.

Advised Electives for Non-education Graduates: (6)

EDF 5812	National Educational Systems: A Comparative Analysis	3
or		
SYO 5255	Sociology of Education	
and		
EXP 5406	Theories of Learning	
or		

EDF 6215	Application of Learning Theory to Instruction	3

[1] Students who have met already the reading requirement as undergraduates or through approved in-service education may substitute an elective for this course

Vocational Home Economics Education

Degree: **Master of Science**
Required Program: (30 semester hours)
Required Core: (15-18)

HEE 5335	Trends in Vocational Home Economics Education	3
EVT 5168	Curriculum Development in Vocational Education	3
HEE 6915	Research in Home Economics Education	3
HEE 6126	Teaching Home Economics in Diverse Educational Environments	3
HEE 6937	Seminar in Home Economics Education	3
RED 6336	Reading in the Content Area[1]	3

Area of Professional Emphasis: With program advisor's approval, a student may select courses in subject matter of Home Economics chosen from offerings outside of the College of Education, based on professional competencies needed. 9

Electives:
The candidate will be encouraged to make selections on the basis of individual needs and career goals. 3-6

[1] Students who have met already the reading requirement as undergraduates or through approved in-service education may substitute and elective for this course

Vocational Industrial Education

Degree: **Master of Science**

Required Program: (30 semester hours)
Required Core: (18-21)

EVT 5650	Trends and Issues in Vocational Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5695	International Comparative Vocational Education	3
EVT 5769	Evaluation in Vocational and Technical Education	3
EVT 6760	Research in Vocational Education	3
EVT 6930	Seminar in Vocational Education	3
RED 6336	Reading in the Content Area[1]	3

Area of Professional Emphasis: A student under the direction of an advisor, may develop professional competencies in an area of emphasis through school-based field experiences, seminars, methods courses, workshops, or independent study. 3-9

Technical Electives: The candidate will be encouraged to select courses that increase subject area technical competence 3-6

[1] Students who have met already the reading requirement as undergraduates or through approved in-service education may substitute an elective for this course

Doctorate Programs

Adult Education and Human Resource Development (HRD)

The doctoral program in Adult Education and Human Resource Development (HRD) is designed to serve the advanced graduate study needs of a wide range of professionals in leadership positions who are concerned with the design, implementation, and evaluation of educational and training programs for adults. These professionals may be engaged in program development and evaluation, instruction and training, counseling and advisement, consultation, and marketing and recruitment activities designed to further the growth and development of adult learners or to improve organizational functioning through educationally-related intervention strategies, or both. Accordingly, participants in the program come from such diverse backgrounds as business and industry, higher education, public and proprietary schools, health and social service agencies, law enforcement and corrections, the military, governmental agencies, religious organizations, libraries and museums, and civic and professional associations.

Admission Requirements: Applicants to the program must submit the following records and documents:

1. Official transcript from all higher education institutions attended
2. Official copy of the GRE scores
3. Three letters of recommendation
4. A current resume
5. A statement of personal interest in the program
6. A completed Application for Graduate Admission

The data from applicants is reviewed by an admissions committee. The criteria applied in reviewing the applicants files are noted below. Exceptions to one or more of the criteria may be granted provided the applicant has excelled in certain off-setting assessment areas.

1. 3.0 GPA in the last two years of undergraduate work
2. 3.25 in all graduate work attempted
3. A master's degree from an accredited institution or equivalent preparation
4. A score of at least 1000 on the general aptitude portion of the GRE
5. Evidence of commitment to a career in the broad field of Adult Education and HRD
6. Successful professional experience in the field of Adult Education and HRD
7. Potential for leadership or research in the field, or both.

Program of Study: Doctorate programs of study vary according to the individual needs of the participants and their current or anticipated professional goals. A typical program will require a minimum of 101 semester hours beyond the baccalaureate degree and will involve the categories of courses noted below. The list should be considered as a sample program rather than an absolute delineation of exact requirements. Actual programs are planned by the participants and their major professor and doctoral committee.

1. Adult Education and HRD includes such courses as comprehensive Adult Education and HRD planning, program development, instructional design, adult teaching and learning, Adult Education and HRD trends and issues, strategies, and research. 18-24
2. Elective Core varies according to the participants' background and professional goals 9-15
3. Research and Statistics 12
4. Prospectus and Dissertation 24

Community College Teaching

The doctoral program in Community College Teaching is designed to provide the opportunity for specially selected students to enhance instructional and research skills related to the continuing development and operation of the community college. The program is offered in a format to make it attractive and available to place bound professionals in Southeastern Florida. The program is designed to stimulate research related to the community college, particularly in the development of innovative instructional approaches.

Admission Requirements: The requirements for admission consist of a master's degree from an accredited university; combined quantitative and verbal scores of 1000 on the GRE; a score at the 50th percentile or higher on the appropriate subject test of the GRE; a 3.25 GPA on all post- baccalaureate work, a dellpartmental interview, and acceptance by the department of the instructional field.

Program of Study: Post-baccalaureate coursework minimum requirements for the degree, while subject to individual variations, consist of the following:

Community College/Higher Education Core: (20)

EDH 7065	Higher Education: Philosophical and Historical Perspectives	3
EDH 7204	Higher Education: Community College	3
EDH 7307	Higher Education: Instructional Methods	4
EDH 7225	Higher Education: Developmental Programs	3

Additional courses in Education that will enhance the student's instructional abilities and skills.	7
Instructional Field Specialty Area	3

The instructional field consists of 30 graduate hours related to the subject which is or will be taught in the community/junior college.

Cognate Area 16

The cognate area may be taken in one or more subject areas and may include graduate or undergraduate (post-baccalaureate) courses. The design of the cognate should assist the student in developing into a well-rounded community college teacher, one who is able to adapt to changing conditions of instruction.

Research and Statistics 12

The research and statistics requirement is to assist the student in expanding the capacity to use research related to instruction.

Dissertation 24

The dissertation should be on a topic of importance to higher education and should reflect the student's professional interests and goals.

Previous graduate course work, including work completed as part of a master's degree program may be applied toward the doctoral program requirements.

Educational Administration and Supervision

The doctoral program in Educational Administration and Supervision is designed for students who wish to pursue professional careers in leadership roles in educational institutions. Among those roles are principals, supervisors, directors, and superintendents of public and independent schools; state, federal, and international agency administrators and staff; and research and development personnel. The curriculum is designed to enable students to become familiar with and utilize effectively both theoretical and technical knowledge. The program of study is multidisciplinary and integrates broad intellectual perspectives into the study and practice of Educational Leadership.

Admission Requirements: The minimum admission requirements are as follows:

1. A master's degree from an accredited institution
2. A 3.0 GPA in the last 60 hours of undergraduate work.
3. A 3.25 GPA in prior graduate work
4. A score of 1000 on the GRE (verbal and quantitative)
5. Evidence of three years or more of successful and appropriate professional experience
6. Three letters of recommendation to support the application for admission
7. A statement that sets forth the applicant's career goals and relates those goals to the completion of the doctoral program
8. In the case of a foreign student, a TOEFL score of at least 600 and a score of at least 470 on the verbal portion of the GRE.
9. Recommendation by the program faculty following an interview that utilizes targeted-selection methods.

Program of Study: The program requires the completion of a minimum of 99 semester hours of academic work beyond the baccalaureate degree. Program requirements include the following:

Required Core Courses	18
Guided Electives in Educational Administration	15
Minor/Cognate Area	15
Research and Statistics	12
Dissertation	24

Upon completion of the coursework, each student must pass a comprehensive examination and be advanced to candidacy.

The doctoral dissertation is the final component of the series of academic experiences that culminate in the awarding of the Ed.D. degree. A successful dissertation is a demonstration of the candidate's ability to use the tools and methods of basic or applied research in the field, or both, to organize the findings, and to report them in a literate, logical, and lucid fashion. More specific information concerning the doctoral program is available from faculty members in the program area.

Research and Statistics Component of Doctoral Programs

The research requirement is common to all College of Education doctoral programs. The courses listed below are incorporated in the Adult Education and Human Resource Development program, the Community College Teaching program, and the Educational Administration and Supervision program.

Required Program: (9)

EDF 5481	Analysis and Application of Educational Research	3
EDF 6486	Research Methods in Education: Experimental Design and Analysis	3
STA 5166	Statistical Methods in Research I	3

Electives: (3)

EDF 6403	Quantitative Foundations of Educational Research	3
or		
EDG 6475	Qualitative Foundations of Educational Research	3

Certificate and Add-on Certification Programs

Professional Certificate Program in Adult Learning Systems

The professional certificate in adult learning systems is a comprehensive and integrated university-based option to provide professionals with skills and training for adult education programmers. The non-degree certificate program may be pursued in conjunction with a bachelor's or master's degree; or beyond the bachelor's or master's degree; or independent of the pursuit of a degree. The latter option is for persons having special responsibilities and experiences in the field of Adult Education and Human Resource Development.

Required Program: (20 semester hours)

ADE 5925	Workshop in Adult Education and Human Resource Development	1-6
ADE 5385	Adult Teaching and Learning	3
ADE 5180	Organizational and Community Processes in AE/HRD	3
ADE 5383	Development of Adult Education and HRD Programs II	3
ADE 5935	Special Topics in Adult Education and Human Resource Development	1
ADE 6930	Seminar in Adult Education and Human Resource Development	1-3

To be admitted to the program the student must:

1. Hold or be seeking a bachelor's or master's degree from an accredited institution;
2. Have submitted three letters of recommendation describing ability to engage in and profit from such a program of studies;
3. Submit a personal statement of interests and goals which relate to Adult Education and Human Resource Development.

Applicants will develop a project or problem-oriented learning contract during the initial workshop to be pursued throughout the program. Contracts will be refined as the student progresses through the first part of the program of studies. The culminating activity, the Seminar, ADE 6930, will require the student to complete, share, and evaluate the tasks and activities within the individual learning contract.

Professional Graduate Certificate Program in Business Education

The professional Graduate Certificate Program for Business Education requires a minimum of 18 semester hours of course work above the bachelor's degree. This program is designed for those who have already earned a bachelor's degree with a major in Business Education. Consequently, the student will have already met the State Department of Education certificate requirements. A candidate is urged to consult the Business Education advisor to plan a program of study prior to starting a program.

Required Courses: (18 semester hours)

RED 6336	Reading in the Content Area[1]	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational-Technical Education	3
BTE 5671	Problems, Issues and Trends in Business Education	3
BTE 5371	Teaching in Business Education Occupational Programs	3
or		
BTE 5774	Teaching Basic Business and Consumer Education Advised Electives	3-6

[1] Students who have already met the reading requirements as an undergraduate or through approved in-service education may substitute an elective for this course.

Professional Certificate Programs in Health Occupations Education The overall purpose of the professional certificate program in health occupations education is to enhance the development of basic teaching skills and/or instructional techniques of health occupations educators. The professional certificate program provides for the continuing education, upgrading or redirection needs of health occupations teachers through planned advisement and professional certificate recognition. The programs are for both undergraduate and graduate, degree or non-degree seeking students.

Undergraduate Professional Certificate - Health Occupations Education

This 18 semester-hour plan is designed to meet the needs of the individual who 1) is occupationally competent in the health field, 2) does not hold or intend to hold a bachelor's degree in Health Occupations Education, and 3) is currently teaching, or wishes to teach, a health occupations subject.

Prescribed Courses: (18 semester hours)

EVT 3065	Foundations of Vocational Education	3
EVT 3165C	Course Planning in Vocational Education	3
EVT 3367	Testing and Measurement in Vocational Education	3
EVT 4310	Planning and Operating a Health Occupations Programs	3
EVT 4312	Instructional Strategies and Evaluation in Health Occupations Programs	3

Advised Electives: A minimum of one course selected from courses in General Professional and Adult Education, Vocational Education, Health Service Administration, or health speciality 3

Graduate Professional Certificate - Health Occupation Education

This 24 semester hour plan is designed to meet the needs of the individual who (1) is occupationally competent in a health field and currently teaching or desires to teach a health occupations subject, (2) holds a teaching certificate or equivalent or bachelor's degree or both including out of field and (3) does not wish to, or is unable to, meet the master's degree entrance requirements necessary to pursue the master's degree.

Prescribed Courses: (24 semester hours)

EVT 5078	Technical Education in American Society	3
or		
EVT 5650	Trends and Issues in Vocational Education	3
EVT 5168	Curriculum Development in Vocational Education	3
EVT 5769	Evaluation in Vocational and Technical Education	3
EVT 5315	Improvement of Teaching Strategies in Health Occupations and Nursing Education	3
EVT 5317	Occupational Analysis in Health Occupations and Nursing Education	3
and/or		
ADE 5383	Adult Teaching and Learning	3

Advised Electives: A minimum of two courses selected from courses in General Professional and Adult Education, Vocational Education, Health Service Administration or Health Speciality 6

Professional Certificate in Organizational Training

This 24 semester hour professional certificate program is designed to prepare experienced workers to serve in a variety of education, training, and development settings in industry and business as well as public and private agencies and organizations. These settings include three types of training: skills and technical, management, and motivational; and four specific training and development job roles: instructor, media producer, designer, and organization developer. An internship in training and development in a business, industrial, agency or organization setting is required

Required Program: (24 semester hours)

ADE 4284	Organizational Training and Development	3
EME 3402	Computers for Teachers	3
EME 4103	Production and Use of A/V Media	3
EVT 3165	Course Construction	3
EVT 4365	Instructional Strategies	3
EVT 4365L	Instructional Laboratory	3
EVT 4942C	Internship: Training and Development	6

A minimum of two years occupational experience and an associate degree or its equivalent is required for admission.

Program for Guidance Certification

To provide a means of obtaining the Florida Guidance Certificate (K-12) for those who already possess a Master's degree in Education and do not wish to pursue a second Master's degree.

Entrance Requirements

1. Master's degree in Education.
2. Current employment as a counselor or a minimum of three years teaching experience.
3. Status as a non-degree seeking graduate student.

Required Program: (27 semester hours)

EGC 5405	Introduction to Counseling	3
EGC 5305	Educational and Vocational Guidance	3
EGC 6708	Advanced Counseling and Consultation: Theory and Practice	3
EGC 6605	Professional Problems: Counselor Education	3
EGC 6203	Measurement and Appraisal in Counseling	3
EGC 6707	Applied Behavioral Analysis in Education	3
EDF 5432	Measurement and Evaluation in Education	3
EGC 6936	Seminar in Pupil Personnel Services	3
or		
EDF 6215	Application of Learning Theory of Instruction	
EGC 6822	Advanced Practica in Counseling and Consultation[1]	3

Note: At the discretion of the program coordinator, a minimum of six semester hours from another institution may be used to satisfy these requirements.

[1] This is the terminal course in the program with all other courses required as prerequisites. Enrollment is by permission of instructor only.

Program for Vocational Technical Teacher Education Certification

The regular certificate (vocational), valid for five years, will be issued by the State Teacher Certification Office to an individual having: (a) appropriate occupational experience; (b) three years full-time teaching experience in a vocational industrial education subject; (c) twenty semester hours in professional education and vocational teacher education courses, and (d) successfully completed the Florida Teacher Certification Examination. Specific requirements can be found in Section 42 of the State Teacher Certification Guide. Planned programs of preparation completed for certification requirements may be applied to degree requirements.

Note: Special programs of vocational teacher certification, designed in cooperation with local school districts, are offered on an annual basis. Please consult an advisor for further information. Certification requirements are subject to change after June 30, 1988. Please consult an advisor for further information.

Recommended Preparation
Required Program: (21 semester hours)
Foundations of Education (6)
Professional Vocational Education: (15 semester hours)

EVT 3065	Foundations of Vocational Education	3
EVT 3165	Course Planning in Vocational Education (suggested second course in sequence)	3
EVT 3161	Instructional Materials in Vocational Industrial Education	3
EVT 3815	Vocational Education Laboratory Management and Safety	3

EVT 4365 Instructional Strategies and Evaluation in Vocational-Technical Education (suggested first course in sequence) 3

Program for Advanced Vocational Teacher Certification
The State Teacher Certification Office will add the designation Advanced Vocational to the vocational teacher certificate of an individual who has completed the requirements for Vocational Certification, has been employed as a vocational teacher in public or non-public schools in Florida for three years, and has earned 36 semester hours of college credit in vocational teacher education and general education, or general professional education in an approved plan of studies, or both.

Certification requirements are subject to change after June 30, 1988. Please consult an advisor for further information.

A proposed plan of study for Advanced Vocational Certification must be approved by the State Teacher Certification Office. This approval may only be obtained through a Division advisor. It is essential that a candidate for Advanced Vocational Certification meet with a Division advisor to develop a proposed plan of study for approval by the State Teacher Certification Office prior to starting his or her program.

Course Descriptions

Definition of Prefixes
ADE—Adult Education; ARE—Art Education; BTE—Business Teacher Education; CGS—Computer Applications; CHD—Child Development; COA—Home Economics, Consumer Affairs; DAA—Dance Activities; DAE—Dance Education; EDA—Education: Administration; EDE—Education: Elementary; EDF—Education: Foundations; EDG—Education: General; EDH—Education—Higher; EDP—Education: Psychology; EDS—Education: Supervision; EEC—Education: Early Childhood; EED—Education: Emotional Disorders; EEX—Education: Exceptional Child, Core Competencies; EGC—Education: Guidance and Counseling; EGI—Education: Exceptional Child, Gifted; EIA—Education: Industrial Arts; ELD—Education: Specific Learning Disabilities; EME—Education: Technology and Media; EMR—Education: Mental Retardation; ESE—Education Secondary; EVT—Education: Vocational/Technical; FAD—Family Developments; FLE—Foreign Language Education; HEE—Home Economics Education; HHD—Housing; HLP—Health, Leisure, and Physical Education; HME—Home Management Equipment; HOE—Home Economics; LAE—Language Arts and English Education; LEI—Leisure; MAE—Mathematics Education; MUE—Music Education; PEL—Physical Education; PEM—Physical Education Activities; PEO—Physical Education Activities; PEP—Physical Education Activities; PEQ—Physical Education Professional Water; PET—Physical Education Therapy; RED—Reading Education; SCE—Science Education; SPA—Speech Pathology and Audiology; SPS—School Psychology; SSE—Social Studies Education; TSL—TESOL.

Tasks, Observation, and Participation (TOP) are required in designated public schools, two hours per week, concurrent with each undergraduate methods course.

ADE 4284 Organizational Training and Development (3). Describes role of employee training/development in a variety of organizations. History/current trends and issues/future directions noted. Training and development in specific organizations emphasized.

ADE 4384 The Adult Learner (3). Identifies the characteristics and evolving development of adults. Reviews the primary learning theories and analyzes those most applicable for adults as learners.

ADE 5081 Introduction to Adult Education and Human Resource Development (3). Developing rationale for and philosophy of human resource development/adult education: contrasting agencies, program, and curricula; analyzing factors affecting human resource development, differentiating adults and youths as learners; planning and appraising human resource development programs.

ADE 5180 Organizational and Community Processes in AE/HRD (3). Analyzing Human resource and community development programs, the processes and implemental strategies; needs analysis, general objectives, curricula, recruitment, implementation, and evaluation.

ADE 5195 Designing Education and HRD Programs for Disadvantaged (3). Distinguishing various forms of disadvantage; analyzing forces which inhibit solution; criticizing responses to problems; developing programs, curricula, materials recruitment strategies, and evaluation designs.

ADE 5260 Organization and Administration of Adult Education and Human Resource Development Programs (3). Analyzing regulations affecting adult education/human resource development selecting and training staff; selecting organization patterns; executing managerial responsibilities; administering supportive services; relating training to organization development.

ADE 5383 Instructional Processes in AE/HRD (3). Analyzing models for instructional design; identifying and evaluating variables related to such models; developing designs unique for adult learners and organizational needs.

ADE 5385 Adult Teaching and Learning (3). Differentiating theories of learning in relation to teaching adults; contrasting characteristics of adults as opposed to youth; evaluating the implications of such distinctions in relation to learning situations appropriate for adults.

ADE 5906 Individual Study in Adult Education and Human Resource Development (1-3). Specialized intensive study in areas of interest to the student. Subject to approval of program adviser.

ADE 5925 Workshop in Adult Education and Human Resource Department (1-6). Intensive development of selected competencies related to instructional, curricular and/or administrative skills, of special interest to students in adult education/human resource development.

ADE 5935 Special Topics in Adult Education and Human Resource Development (1). 'Mini-courses' which provide for an examination of special facets of adult education and human resource development.

ADE 5945 Supervised Field Experience in Adult Education and Human Resource Development (1-6). Internship in various programs according to needs and interests. Supervisory visits by advisor Joint conferences and seminars involving the student, the program advisor, and an appropriate representative of the cooperating agency are conducted intermittently.

ADE 6674 Organizational Training and HRD Trends and Issues (3). Presentation & analysis of state-of -art trends impacting development of human resources in specific organizations including educational agencies/business & industry/public sector and commerce. Prerequisites: ADE 5081 or equivalent.

ADE 6772 Review of Research in Adult Education and Human Resource Development (3). A review and synthesis of research & development activities in Adult Education/HRD. Examination of resources/practices/designs & justifications. Assessment of the status of research in this field. Prerequisites: EDF 5481, ADE 5383, ADE 5180.

ADE 6920 Adult Education/HRD Colloquium (1-6). Lectures & discussions by distinguished educators/social scientists/organizational executives/graduate faculty & students. Colloquia presents specific topics related to issues/trends/designs & applications.

ADE 6930 Seminar in Adult Education and Human Resource Development (1-3). Intensive study of instructional, curricular, and/or administrative principles and practices, for the solution of problems of special interest to students in adult education and human resource development.

ADE 7475 Comparative Systems, Strategies and Materials for Adult Education/HRD (3). A review and critique of the prevailing inventory of packaged systems on the market. Examination of assumptions and problems surrounding their actual usage in local and national organizations. Prerequisites: ADE 5180/ADE 5383.

ADE 7571 Consulting as an Adult Education/HRD Process (3). Examination of use of internal/external consultation in organizations. Strategies for making entry diagnoses interventions achieving internalization of processes outcomes. Prerequisites: ADE 5180, ADE 5383.

ADE 7980 Dissertation, Adult Education (3-20). Research for doctoral dissertation for those students approved for candidacy in the Adult Education/Human Resource Development Program. Prerequisite: Advancement to Candidacy in doctoral program.

ADE 9964 Comprehensive Doctoral Examination, Adult Education/HRD (0). Comprehensive doctoral examination in the Adult Education/Human Resource Development. Prerequisite: Permission of Major Professor.

ADE 9985 Dissertation Defense, Adult Education/HRD (0). Defense of Dissertation. Prerequisites: Permission of Major Professor and ADE 7980.

ARE 3313 Experiencing Art In The Elementary School (3). Designed to provide the student with competencies necessary for the development and implementation of art experiences in the elementary curriculum. Prerequisite: Art course.

ARE 4316 Special Teaching Laboratory: Art In Grades K-6 (3). Development of instructional skills, techniques, and strategies for teaching art in the elementary school. Laboratory and field participation required. Prerequisites: EDF 3723, EDG 3321, EDG 3322. Minimum prerequisite or corequisite of 20 hours required in subject matter specialization.

ARE 4341 Special Teaching Laboratory: Art In Grades 7-12 (3). Development of instructional skills, techniques, and strategies for teaching art in the junior and senior high school. Laboratory and field participation required. Prerequisites: EDF 3723, EDG 3321, EDG 3322; ARE 4316. Minimum prerequisite or corequisite of 20 hours required in subject matter specialization.

ARE 4940 Student Teaching In Art (9). Supervised teaching in an elementary and secondary school. Prerequisites: EDG 3321, 3322; ARE 4316, 4341; RED 4325, and 18 semester hours of the course work required in art.

ARE 5251 Art for the Exceptional Child (3). Development of instructional art skills, techniques, and strategies as related to the exceptional child. Observation and field participation required.

ARE 5905 Directed Study In Art Education (1-3). Individual investigation and research in one or more areas of art education. Prerequisite: Consent of professor.

ARE 5945 Practicum: Art Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Program and completion of prerequisite coursework in education and subject matter area. Supervised teaching in an elementary or secondary school.

ARE 6140 Curriculum and Instruction In Art (3). Examination of theoretical bases of curriculum development in art education. Analysis of objectives, content, methods, and materials for art instruction in the elementary, junior, and senior high school. Prerequisite: EDF 5287.

ARE 6262 Organization and Coordination of School and Community Art (3). Procedures for the organization, coordination and evaluation of school, community, and inservice art programs, with particular attention to the urban multi-cultural setting.

ARE 6304 Instruction In Art (Early Childhood) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.

ARE 6315 Instruction In Art (Elementary) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.

ARE 6706 Seminar In Art Education: Contemporary Issues and Research (3). Examination of current issues and review of research in art education literature. Delineation and application of an individual research problem. Prerequisite: EDF 5481.

ARE 6925-29 Workshop In Art Education (3). Production and application of materials and techniques in art education, in a laboratory or field setting.

ARE 7938 Doctoral Seminar In Art Education (3). Advanced doctoral study in current theories and research related to art education. Prerequisites: ARE 6706 and EDF 6486.

BTE 3068 Principles of Business Education (3). Competency: A knowledge of basic philosophies, principles, practices, trends, and objectives in Business Education.

BTE 4360 Special Teaching Lab: Business Education Non-Skills (3). Competency: Knowledge and application of instructional principles, methods, techniques, and practices to the teaching of accounting, bookkeeping, and basic business and economic education courses. Prerequisites: BTE 3068 and professional education core concurrent with BTE 4944.

BTE 4364 Special Teaching Lab: Business Education Skills (3). Competency: Knowledge and application of instructional principles, methods, techniques and practices to the teaching for office careers to include office simulation and cooperative business education. Prerequisites: BTE 3068 and professional education core concurrent with BTE 4944.

BTE 4944 Special Teaching Lab: Business Education Practicum (1-3). Competency: Application of methods of teaching in business and office occupations in selected institutions and knowledge of educational institutions. Prerequisites: BTE 3068 and professional education core concurrent with BTE 4360 and BTE 4364.

BTE 4945 Student Teaching In Business Education (9). Competency: Competencies developed in the utilization of instructional knowledge, attitudes, and skills in business education instructional situations. Prerequisites: BTE 3068, 4360, 4364 and 4944; professional education core.

BTE 5371 Teaching In Business Education Occupational Programs (3). Competency: Knowledge of current and evolving methods, techniques and practices to teach and evaluate office education programs to include office simulation and cooperative business education.

BTE 5671 Problems, Issues and Trends In Business Education (3). Competency: Historical information, issues, current trends, new dimensions and problems in business education. Prerequisite: Graduate standing.

BTE 5774 Teaching Basic Business and Consumer Education (3). Competency: Knowledge of current and evolving methods, techniques and practices to teach and evaluate basic business and consumer education programs. Prerequisite: Graduate Standing.

BTE 6203 Teaching Word Processing (3). Competency: Knowledge, techniques, methods of teaching, concepts and applications of word processing essential for instruction.

BTE 6905 Directed Independent Study (1-3). Competency: The ability to identify, research, and report on a special problem in business education. Subject to approval of the program advisor.

BTE 6925 Workshop In Business Education (1-3). Competency: Selected competencies related to instructional and technical areas of business education.

BTE 6940 Supervised Clinical Field Experience (1-3). Competency: Updating and upgrading of occupational skills developed via field-based work experience in the business and office occupations. Placement is made subject to approval of program advisor.

CHD 3220 Child Development: Infancy and Early Childhood (3). Systematic study of total developmental process in the child from conception through early childhood emphasizing the effects of home and family environment. Includes observational experiences. Prerequisite: DEP 3001 or equivalent.

CHD 4210 Middle Childhood and Adolescent Development (3). Extension of the study of developmental patterns of children, with emphasis on physical, intellectual, social, and emotional maturation through adolescence. Analysis of environmental and home influences.

CHD 4930 Seminar In Child Development (3). Study of current issues and trends in child development and the professional role of the home economics developmental specialist. Seniors only. Corequisite: HOE 4940.

CHD 5264 Advanced Studies In Child Development (3). Survey of current literature on selected areas, analysis of trends and issues, and investigation of recent research in Child Development. Prerequisites: CHD 3220, CHD 4320 or equivalent.

CGS 5410 Logo for Educators (3). Aspects of Logo as used by educators. Creative aspects, the language, philosophy, structure, and application. Prerequisite: Computers in Classroom or equivalent.

CGS 5413 PILOT for Educators (3). Authoring language PILOT for teachers. Designed to develop language and its application to all levels of education. Prerequisite: EME 6405 or equivalent.

COA 5450 Consumer Legislation (3). Study of federal and state legislation and regulations affecting the consumer and business. Appropriate for business and consumer affairs majors. Graduate students fulfill additional requirements.

DAA 1300L Social Dance (1). This course is designed to promote skills in the performance of various social dances including the waltz, cha-cha, rumba, tango, samba, and foxtrot, also contemporary and popular dances. This course will not count toward graduation except Physical Education Majors.

DAE 3371 Dance in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the dance program for grades K-8. Emphasis on educational dance and simple forms of folk and square dance.

DAE 4362 Dance in the Middle and Secondary School (3). Includes content and methods for teaching dance in grades 6-12. Emphasis on structured multi-cultural dance forms including folk and square dance, social dance, and country-western dance. Prerequisite: Dance activity class from lower division.

EDA 6061 Introduction to Educational Leadership (3). Examines the public school system as a complex formal organization; the dynamics of community-school interactions; goal clarification and program evaluation; procurement and allocation of resources; and the legal context within which the school system operates.

EDA 6063 Administration of Independent Schools (3). A survey course to examine administration of private schools. Will include sectarian and nonsectarian schools, historical overview, values, funding, administration.

EDA 6223 Emerging Designs for School Organization and Staff Utilization (3). Critical analysis of alternatives to traditional school organization and staffing and possible future alternatives in public education.

EDA 6225 Labor Relations in Education (3). Examining relations between a district school board and its employees as professional organizations, unions, individual contracts management ,and employer-employee relationships.

EDA 6232 School Law (3). A basic course in school law. Students will understand: the law library and its relationship to the school; demonstrate a knowledge about our legal system; will function in a legal framework; and will identify basic concepts of the law as applied to education.

EDA 6242 School Finance (3). Describes and analyzes current and emerging school finance plans; the influence of the courts and federal and state legislation on those plans; special focus on the Florida Education Finance Plan; and the budget responsibilities of the school principal at the school center.

EDA 6503 The Principalship (3). Organization and administration of the school; emphasis on competencies necessary for leadership and management of the school center, both elementary and secondary.

EDA 6510 Elementary School Administration (3). Development of competencies required to function as the principal of an elementary school, with particular attention to the urban setting.

EDA 6530 Secondary School Administration (3). Development of competencies required to function as the principal of a secondary school, with particular attention to the urban setting.

EDA 6905 Individual Study in School Administration/Supervision (1-3). For advanced students wishing to undertake an individual project directly related to school administration or supervision. May not substitute for regular course offerings. Prerequisites: (1) The student must be in a master's degree program in educational administration and supervision at this university, and (2) written permission of the chairman of the Division and then approval of the instructor is required.

EDA 6928 Workshop in School Administration/Supervision (1-3). Offers an opportunity for experienced school administrators and supervisors to participate in a problem-oriented workshop.

EDA 6930 Seminar in Educational Leadership (3). In-depth review of competencies in the eight domains of effective educational leadership. Focus is on case studies and research related to basic and high performing competencies of school managers.

EDA 6943 Supervised Field Experience (1-5). Development of supervisory skills by undertaking an arranged field-based assignment. Prerequisites: The student must be in a master's degree program in educational administration and supervision at this university, and must have completed most of the required program courses.

EDA 7062 Educational Organization and Administration (3). Purposes, structure, and administration of educational organization. Prerequisites: EDA 6061 and admission to the doctoral program.

EDA 7103 Theories of Educational Administration (3). Examination of theoretical constructs and models related to the organization and administration of educational institutions. Prerequisites: Admission to doctoral program and completion of at least 12 semester hours of EDA coursework.

EDA 7195 Educational Policy (3). Review, analysis, and synthesis of various concepts and models of educational policy formation and implementation.

EDA 7197 Politics of Education (3). Analysis of the political dynamics of educational governance and of the political dimension of educational administration.

EDA 7233 School Law II (3). Examines the area of school law in depth and includes special topics in law, policy, report, research, dissertation prospectus, as appropriate. Prerequisite: EDA 6232.

EDA 7235 School Law Seminar (3). A seminar to examine the area of school law in depth. Will include special topics in law, reports, research, dissertation prospectus as appropriate. Prerequisite: EDA 6232

EDA 7236 Law and Higher Education (3). Analyzes the legal structure of higher education including religion, academic freedom, employment, due process, student's rights, desegregation, tort liability.

EDA 7550 Administration of Higher Education (3). Analysis of colleges and universities as social organizations, with special emphasis on issues of administration, organization, and governance in higher education.

EDA 7905 Independent Study (1-6). An opportunity for advanced graduate students to engage in independent study under the direction of a faculty member. Prerequisite: Admission to doctoral program.

EDA 7930 Seminar in Educational Administration and Supervision (3). Consideration of current critical problems and issues in the organization and administration of educational institutions and the role of official leadership in relation to them. Prerequisites: EDA 7103 and admission to doctoral program.

EDA 7943 Field Projects (1-6). Participation by advanced graduate students in field projects and studies, usually as a member of an official work group related to an educational organization. Prerequisite: Admission to doctoral program.

EDA 7979 Dissertation Research Seminar (3). Designed to provide advanced doctoral students with a knowledge and understanding of the process of dissertation research and writing and of the dissertation defense. Prerequisite: Advanced doctoral standing.

EDA 7980 Dissertation (3-9). Research for doctoral dissertation. Prerequisite: Advancement to candidacy in doctoral program.

EDE 4451C Evaluation in Elementary Education (3). Designed to provide the Elementary Education pre-service teacher with knowledge and practical approaches to evaluation in the elementary school.

EDE 4925 Workshop in Elementary Education (1-3). An opportunity for students to continue to develop competency in a specified area of elementary education. No prerequisites.

EDE 4936C Senior Seminar in Elementary Education (3). A seminar designed for student teachers covering topics related to classroom management, discipline, school community relations, professional problems and issues. Corequisite: EDE 4943.

EDE 4940 Internship I-A: Elementary Education (1). A first introductory experience in observing and performing tasks in a public school elementary classroom. Corequisites: EDF 3723, EDG 3321, EDG 3322.

EDE 4941 Internship I-B: Elementary Education (1). A second introductory experience in observing and performing tasks in a public school elementary classroom. Prerequisites: EDF 3723, EDG 3321, EDG 3322, EDE 4940.

EDE 4942 Internship I-C: Elementary Education (1). A third introductory experience in observing and performing tasks in a public school elementary classroom. Prerequisites: EDF 3723, EDG 3321, EDG 3322, EDE 4940, EDE 4941.

EDE 4943 Internship II (12). A field experience in an elementary school where the student serves as a teacher associate, demonstrating competencies acquired throughout the program. Prerequisites: ARE 3313 or MUE 3313, EDE 4451C, EDE 4936, HLP 3013, LAE 4314, MAE 4312, RED 4150, RED 4311, SCE 4310, SSE 4312. Corequisite: EDE 4936.

EDE 5267 Education of the Child in Urban Society (3). For students desiring advanced study in the schooling of inner-city pupils in K-6. Prerequisites: EDF 3723, EDG 3321, EDG 3322.

EDE 5905 Individual Study in Elementary Education (1-3). Individual investigation in the area of instruction in elementary education. Permission of instructor required.

EDE 6205 Curriculum Design for Childhood Education (3). A study of curriculum theory, construction, and evaluation.

EDE 6225 Education Programs for Older Children (3). Program developed for older children; curriculum trends based on contemporary psychological, educational and sociological research.

EDE 6488 Research in Elementary Education (3). Expose students to research in elementary education and the paradigms associated with this research. Teach students to be critical readers of this research. Prepare students for thesis. Prerequisite: EDF 5481.

EDE 6925 Workshop in Elementary Education (1-3). An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields in elementary education.

EDE 6930 Seminar in Elementary Education (3). Advanced study of critical issues and problems in elementary education.

EDE 6948 Supervised Field Experience in Elementary Education (3-9). Field work in education institutions and organizations in elementary education.

EDE 6971 Thesis in Elementary Education (6). Design and preparation of an original scholarly investigation in elementary education. Prerequisites: EDF 5481, EDF 5430, EDE 6488, and consent of instructor. Corequisites: EDE 6930.

EDE 7935 Doctoral Seminar in Elementary Education (3). Advanced doctoral study of current theories and research related to elementary education. Prerequisite:EDF 6486.

EDF 2930 Teaching as a Profession (3). An introductory seminar to introduce students to the opportunities available in the teaching profession.

EDF 3521 Education in History (3). An examination of the concepts of childhood, and processes of social initiation in differing historical contexts.

EDF 3542 Philosophy of Education (3). Notions of philosophy and education will be applied in the review of prominent philosophies of education. Special attention will be given to the development of the student's own philosophy of education and to the importance of philosophical assumptions in curriculum designs and teaching strategies.

EDF 3723 Schooling in America (3). Systematic analysis and examination of critical educational issues in terms of their influence and impact on curriculum and instruction in contemporary schooling.

EDF 4881 The Teacher and the Law (3). For advanced undergraduates and beginning teachers. Analysis of legal rights and responsibilities in the classroom, laws related to liability, contract, records, discipline, due process, handicapped, and schools.

EDF 5216 Effective Learning in the Classroom (3). A behavioral approach to effective teaching techniques, including theoretical background, behavioral definitions, writing effective objectives, and evaluation of effective learning in the classroom. A field experience will be included.

EDF 5287 Instructional Technology: Systems Approach (3). Development of instructional competencies, with an emphasis on the use of a systems approach in the design, implementation, and evaluation of programs.

EDF 5432 Measurement and Evaluation in Education (3). Competencies required for the design, construction or selection, and evaluation of measuring instruments. Prerequisite: EDF 5481.

EDF 5481 Analysis and Application of Educational Research (3). Competencies required for the design, implementation, and evaluation of educational research, including: problem formulation and analysis; sample selection; instrument selection; formulation of research design and procedure; and data analysis.

EDF 5751 Socio/Cultural Conflict in Educational Change (3). This course explores radical interpretations of the relationship of education to development in the Third World. Emphasis will be placed on the problem of values conflict and on the use of appropriate educational technologies. Prerequisite: EDF 5750.

EDF 5812 National Educational Systems: A Comparative Analysis (3). Examination of educational structures and guiding educational objectives in a limited number of both developed and developing countries. Analysis of the responses of national educational systems to common educational issues.

EDF 5820 Latin American Education: An Historical and Contemporary Overview (3). Historical and current development of Latin American education, and analysis of the principal forces shaping this development.

EDF 5821 African Educational Systems: A Comparative Approach (3). Contemporary trends and issues of education in selected independent African countries, with historical analysis of colonial educational policies and practices.

EDF 5850 International Development Education: Historical and Contemporary Reality (3). Designed to explore the relationship between education and the modernization/development process. Special emphasis on historic/contemporary educational planning models.

EDF 5851 Socio/Cultural Conflict in Educational Change (3). This course explores radical interpretations of the relationship of education to development in the Third World. Emphasis will be placed on the problem of values conflict and on the use of appropriate educational technologies. Prerequisite: EDF 5850.

EDF 5852 Educational Development Issues in Context: A Multidisciplinary Perspective (3). A critical analysis of educational reforms of the past and the present, drawing on social science research and policy issues in the Third World. Prerequisite: EDF 5850.

EDF 5880 Intercultural Education: National and International Perspectives (3). Analysis of concepts and programs of intercultural and international education. consideration of the role of education in fostering intercultural understanding both nationally and internationally.

EDF 5881 Foundations of Bilingual Education (3). Focus on an understanding of the bases and rationale for bilingual education, including linguistic, psycholinguistic and sociolinguistic; historical legal perspectives. Issues in elementary, secondary, adult, vocational, and special education will also be addressed.

EDF 5905 Independent Study (1-3). The student plans and carries out an independent study project under direction. Topics are to directly relate to content of education courses. Independent study may not substitute for regular course offerings. Prerequisites: Written permission of the chairman of the Division and the approval of the instructor.

EDF 5955 Field Study Abroad (3-6). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.

EDF 6165 Psychological Foundations of Education (3). An advanced survey course designed to acquaint students with major theories and basic principles of learning, instruction, human development, personality, and motivation.

EDF 6211 Psychological Foundations of Education (3). An advanced survey course designed to acquaint students with major theories and basic principles of learning, instruction, human development, personality and motivation.

EDF 6215 Application of Learning Theory to Instruction (3). Competencies required for analysis of selected learning theories and application of these theories to an instructional system.

EDF 6403C Quantitative Foundations of Educational Research (3). Integrative coverage of fundamentals in the general field of educational research with emphasis on utilizing computer for data analysis. Prerequisites: EDF 5481 and EDF 6486, and STA 5163 or STA 6113.

EDF 6444 Non-Biased Assessment of the Culturally Different (3). Issues in the development and use of assessment procedures designed to avoid bias against an individual's cultural, linguistic, or ethnic background.

EDF 6475 Qualitative Foundations of Educational Research (3). Introduction to philosophical, historical, sociological, and other methodologies as aspects of qualitative educational research. Prerequisites: EDF 5481 and EDF 6486.

EDF 6486 Research Methods in Education: Experimental Design and Analysis (3). Competencies required for the design and analysis of complex educational problems, including formulation of pre-experimental, true experimental, quasi-experimental, and factorial designs; and related analysis. Prerequisite: EDF 5481.

EDF 6651 International Development Education: Educational Technology, Planning, and Assessment (3). Introduction to the impact of technology in the delivery and management of education. Emphasis is placed on planning, implementation, and assessment in developing societies. Prerequisite: EDG 6425 or equivalent.

EDF 6654 Macro- and Micro-Planning In Education (3). This course is designed to study the theoretical and methodological foundations of educational planning in the U.S. and other countries. Prerequisites: Graduate Standing; EDF 5481 or equivalent.

EDF 6656 International Development Education: Innovative Approaches In Educational Planning (3). Introduction to educational planning approaches which stress decentralization. It focuses on new and innovative perspectives which emphasize strategic aspects of educational planning. Prerequisite: EDG 6425.

EDF 6658 Selected Topics In International Development Education: Current Policy Issues and Problems (3). This course is dedicated to the study of contemporary problems and issues in the fields of educational policy, planning, management, implementation, and research in developing societies.

EDF 6906 Independent Study In International Development Education (3). Specialized intensive study in areas of interest to International Development Education majors. Prerequisite: Approval of program advisor and instructor.

EDF 6931 Research Problems In Educational Psychology (3). Critical analysis of research trends and topics in educational psychology with specific relevance to counseling, school psychology, or special education. Students prepare a prospectus for thesis.

EDF 6971 Thesis In Educational Psychology (3). Competencies in conducting an original investigation in Educational Psychology with specific relevance to counseling, school psychology, or special education.

EDF 6972 Thesis In International Development Education (3-9). A thesis is required of students in International Development Education which demonstrates the application of their analytical, conceptual, and technical skills to a specific educational development problem. Prerequisite: Final semester standing in the International Development Education Master's degree program.

EDF 7934 Seminar In the Social Foundations of Education (3). Provides a social and philosophical frame of reference reflecting the society in which education occurs and the resulting implications for the functioning of schools. Prerequisites: M.S. or equivalent and at least one graduate course in history, philosophy or sociology, or equivalent.

EDG 3321 General Teaching Laboratory I: Basic Teaching Skills (3). Practice in generic teaching skills, techniques and strategies basic to all age levels and subject matter areas. Lecture, seminar, and laboratory.

EDG 3321L General Teaching Laboratory I: Laboratory (2). General teaching skills laboratory to develop and refine basic teaching skills in the areas of instruction, classroom management, and evaluation. Corequisite: EDG 3321.

EDG 3322 General Teaching Laboratory II: Human Relations Skills (3). Designed to enable student to work effectively in multicultural and multi-ethnic communities through the examination of self, the development of human relations and communication skills, and the examination of today's complex urban society.

EDG 3760 Educational Planning: Paraprofessional for Multicultural Exceptional Students (3). Concepts and skills used in planning educational programs for exceptional students representing diverse cultural/ethnic backgrounds. Guidelines for examining and developing curriculum materials for use with handicapped students of different cultures. Prerequisite: Associate degree of equivalent.

EDG 3761 Supervised Field Experiences for Paraprofessionals: Multicultural Exceptional Students (3). Demonstration of competencies learned throughout Bilingual Exceptional Programs. Field settings in which 80% of the students are of multicultural origin. Prerequisite: Associate degree or equivalent and EEX 3223.

EDG 4702 Educational Psychology of Multicultural Students (3). Introduction to principles and procedures utilized in teaching students from multicultural communities. Prerequisite: Associate degree equivalent and Educational Psychology. Corequisite: EDG 4703.

EDG 4703 Educational Psychology Supervised Field Experience with Multicultural Students (3). Demonstration of competencies learned throughout study program in educational psychology of multicultural students. Prerequisite: Associate degree of equivalent.

EDG 5325 Analysis of Teaching (3). Examination of the research on instruction in teaching, and the development of skills in the observation and analysis of teacher behavior.

EDG 5707 Cultural and Cross-Cultural Studies (3). Overview of immigration patterns in U.S., discussions of theories of ethnicity, acculturation, intercultural communication. Development of teaching strategies for multicultural classrooms. Multicultural issues in elementary, secondary, adult, vocational, and special education will also be addressed.

EDG 5757 Curriculum Development for Bilingual Programs (3). Presents curriculum designs and plans for bilingual schooling. Examines materials available for bilingual classes, with emphasis on adaptations and original creations to meet local needs. Issues in elementary, secondary, adult, vocational, and special education will also be addressed.

EDG 6250 Curriculum Development (3). Development of basic technical constructs of curriculum. Planning of reality-based educational programs at all levels of schooling.

EDG 6286 Curriculum Evaluation and Improvement in Urban School Systems (3). Development of skills in curriculum evaluation and strategies for improvement of on-going curriculum.

EDG 6425 Macro and Micro-Planning in Education (3). This course is designed to study the theoretical and methodological foundations of educational planning in the U.S. and other countries. Prerequisites: Graduate standing; EDF 5481 or equivalent.

EDG 6925 Workshop in General Professional Education (1-3). Offers an opportunity for school personnel to participate in a problem-oriented workshop in one of the fields of general professional education.

EDG 6943 Supervised Field Experience (1-5). Students are provided an opportunity to perform supervisory duties appropriate to the students professional goals. Only advanced graduate students are permitted to enroll.

EDG 7222 Theory and Research (3). Theories of curriculum organization and a survey of curriculum research and historical patterns of curriculum development. Prerequisite: EDG 6250.

EDG 7362 Theory and Research (3). Theories of instruction and research in the learning process, creativity, the thought process, human relations and group dynamic and other fields related to the development of instructional theory and practice. Prerequisites: EDG 6250 Psychology of Learning or equivalent.

EDG 7391 Seminar in Instructional Leadership (3). Review theories of change and organizational development applicable to education. Discussion of rules and functions of supervisors, curriculum developers and other leaders in the instructional process. Prerequisites: EDS 6115 or EDS 6050.

EDG 7665 Seminar in Curriculum (3). Provides advanced doctoral students the opportunity to participate in a high level seminar focused on identifying the forces which shape curriculum theory and practice. Prerequisite: EDG 7222.

EDG 7938 Doctoral Seminar in Instructional Leadership (3). Advanced doctoral studies in current theories and research related to instructional leadership. Prerequisite: EDG 7391.

EDG 7980 Doctoral Dissertation (3-20). Original contribution to knowledge in major field. Prerequisite: doctoral candidate.

EDH 6905 Directed Independent Study (1-6). Specialized intensive study in higher education and/or community college in areas of interest to the student. Subject to approval of program advisor. Prerequisite: Permission of instructor.

EDH 6925 Workshop in Higher Education/Community College (1-6). Intensive development of selected competencies related to instructional curricular, staff development and/or administrative skills of special interest to students in higher education and community college. Prerequisite: Permission of instructor.

EDH 6935 Special Topics in Higher Education/Community College (1-6). This course provides for the examination of special aspects of higher education of interest to students in higher education and community college teaching. Prerequisite: Permission of instructor.

EDH 7065 Higher Education: Philosophical/Historical Perspectives (3). This course examines basic philosophical positions in higher education; and the history of American higher education. A contemporary philosophical position is then developed.

EDH 7204 Higher Education: Community College (3). This course examines the structure of the community college including: curriculum; administration and legal aspects; the community college concept; technical and career programs and current issues and problems.

EDH 7225 Higher Education: Developmental Programs (3). This course examines the spectrum of developmental programs in higher education. Special attention is given to program structure, academic support systems and curricula designed to increase student achievement.

EDH 7307 Higher Education: Instructional Methods (4). This course will develop knowledge of and skill in the use of higher education instructional methods, such as lecture, discussion, demonstration, TV instruction, and computer assisted instruction.

EDH 7980 Dissertation in Community College Teaching (1-10). Research for doctoral dissertation. Prerequisites: Advancement to candidacy in the doctoral program and completion of all other doctoral requirements. Course may be repeated as needed.

EDP 3004 Introductory Educational Psychology (3). An introduction to the ways in which the principles of psychology apply to educational practices, considering aspects of basic processes such as development, learning, individual differences, and adjustment, with special reference to the problems of teacher effectiveness and teacher-student interaction.

EDS 6050 Supervision and Staff Development (3). Competencies in supervision and staff development. Focus is on functions, tasks, and job dimensions of educational leaders who serve as supervisors and providers of staff development activities.

EDS 6115 School Personnel Management (3). Competencies required of effective school personnel. Focus is on skills needed for exercising leadership in school personnel selection, evaluation, and development.

EDS 7150 Doctoral Seminar in Educational Supervision (3). Special and intensive treatment of current topics and issues in educational supervision. Prerequisites: EDS 6050 and admission to the doctoral program.

EDS 7160 Personnel Management in Education (3). Personnel Management in education: current theories; policies and practices in recruitment; promotion; tenure; retirement; staff development; termination procedures; performance evaluation; and collective bargaining. Prerequisites: EDA 6061, EDS 6050, EDS 6115, and admission to the doctoral program.

EEC 4005 Early Childhood Education Programs (3). Philosophy and theories of early childhood education; physical, emotional, social, and mental development. Observation and participation are required. Senior class status required.

EEC 4204 Curriculum and Instruction in Early Childhood Education (3). Practical considerations of basic principles, experiments, research, and trends related to early childhood education. Examination of materials and techniques of teaching and working with parents. Observation and participation are required. Senior class status required.

EEC 4301 Trends in Early Childhood Education (3). Understanding and dealing with critical issues; assessing the progress of contemporary programs locally and nationally; and recommending solutions for current problems.

EEC 4925 Workshop in Early Childhood Education (1-3). An opportunity for students to continue to develop competency in a specified area of early childhood education.

EEC 4940 Internship I-A: Early Childhood Education (1). A first introductory experience in observing and performing tasks in a public school early childhood classroom.

EEC 4941 Internship I-B: Early Childhood Education (1). A second introductory experience in observing and performing tasks in a public school early childhood classroom.

EEC 5906 Individual Study in Early Childhood Education (1-3). Individual investigation in the area of preschool and early childhood education. Permission of instructor required.

EEC 6205 Education Programs for Younger Children (3). Programs developed for young children; curriculum trends based on contemporary psychological, educational, and sociological research.

EEC 6612 Screening and Assessing for Assignment of Preventative, Developmental, and Enrichment Strategies for Primary Children (3). Designed to assist the primary teacher and primary specialist to understand the processes of and methods for screening, assessing, and assignment of preventative, developmental, and enrichment strategies for primary children.

EEC 6678 Research in Early Childhood Education (3). Expose students to research in early childhood education and the paradigms associated with this research. Teach students to be critical readers of this research. Prepare students for thesis. Prerequisite: EDF 5481.

EEC 6926 Workshop In Early Childhood Education (1-3). An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields in preschool and early childhood education.

EEC 6932 Seminar In Early Childhood Education (3). Advanced study of critical issues and problems in preschool and early childhood education.

EEC 6948 Supervised Experience In Early Childhood Education (3-9). Field work in educational institutions and organizations in preschool and early childhood education.

EEC 6971 Thesis In Early Childhood Education (6). Design and preparation of an original scholarly investigation in early childhood education. Prerequisites: EDF 5481, EDF 5430, EEC 6678, and consent of instructor. Corequisite: EEC 6932.

EEC 7932 Doctoral Seminar In Early Childhood Education (3). Advanced doctoral study of current theories and research related to early childhood education. Topics will vary and may include: social, cognitive, affective and language development. Prerequisite: EDF 6486.

EED 4227 Educational Planning for Emotional Handicaps (3). Concepts and skills with various models of curriculum, instruction, and classroom design for individuals with social and emotional adjustment problems. Laboratory experiences required. Prerequisites: EEX 4241, EEX 4601. Corequisite: EEX 4242.

EED 6226 Advanced Theory and Practice: Emotional Handicaps (3). Major theories in the area of behavior disorders, and skills in the application of these theories to education. Prerequisite: EED 4227 or permission of instructor.

EEX 3010C Introduction to Exceptional Children and Youth (3). Significant concepts in relation to the learning and adjustment problems of exceptional children and youth. Field experiences required.

EEX 3202 Foundations of Exceptionality (3). Basic concepts in relation to the biological, genetic, psychological, and social foundations of handicapping conditions, as they apply to classroom behavior.

EEX 3221 Assessment of Exceptional Children and Youth (3). Competencies in assessment of the basic modalities of learning (visual, auditory, haptic, and perceptual motor processes), and the language areas of reading, writing, spelling, and arithmetic.

EEX 4070 Exceptional Children In the Mainstream of Education (3). Characteristics of mildly handicapped children and techniques of identifying, assessing, managing and instructing them in the regular classroom.

EEX 4241 Academic Skills for Exceptional Children (3). Competencies in the selection, adaptation, and preparation of appropriate instructional materials in arithmetic, art, music, science, and social studies, including skill with audio-visual equipment and other multimedia approaches. Prerequisites: EEX 3010C, SPA 3000, EEX 3221, RED 4310.

EEX 4242C Academic Skills for Exceptional Children (3). A field-based course where competencies are demonstrated in the areas of assessment, prescriptive teaching, IEP development, lesson planning, and curriculum scope and sequence. Prerequisite EEX 4241.

EEX 4253 Educational Programs for the Handicapped at the Secondary Level (3). Analysis and application of instruction methodology and service delivery models for handicapped students in secondary school programs.

EEX 4601 Behavioral Approaches to Classroom Learning I (3). Concepts and skills for building and modifying social and academic behaviors. Skills in precision teaching, behavior modification, and the functional analysis of behavior. Prerequisites: EEX 3010, 3202, SPA 3000, EEX 3221.

EEX 4611 Behavioral Approaches to Classroom Learning II (3). Concepts and skills necessary for the management and maintenance of classroom behavior, including token economies, current development planning, and parent/teacher consultation. Field experience required. Prerequisite: EEX 4601.

EEX 4861 Student Teaching (12). A field experience in a program for exceptional children, demonstrating competencies learned throughout the program.

EEX 4905 Individual Study In Special Education (1-6). Concepts or competencies contracted for between an undergraduate student and an instructor in accordance with the student's individual needs.

EEX 5250 Reading for Exceptional Students (3). Instructional and curricular adaptations and modifications of developmental reading programs for students for varying exceptionalities. Prerequisite: RED 4150 or equivalent.

EEX 5771/HME 5225 Independent Living for the Handicapped (3). Explores the special home and personal living skills required in order for persons with mental and physical limitations to achieve their maximum independence. Suitable for students in psychoeducational services, health, physical education and recreation, social work, home economics, or anyone planning to work with the elderly or handicapped. Approved for certification for teachers of the mentally retarded.

EEX 6020 Professional Issues In Special Education (3). Current issues in the special education profession, with focus on changing trends, delivery of service, legislation, and role diversification. Emphasis is placed on articulation of a personal professional role model.

EEX 6051 Exceptional Children and Youth (3). Significant concepts in relation to the learning and adjustment problems of exceptional children and youth. Field experience and graduate project required.

EEX 6060 Curriculum Planning and Development In Special Education (3). This course stresses special education curriculum content and methodologies, and emphasizes the learning characteristics of exceptional children and youth. Curriculum planning and development as a generic process will be also reviewed. Prerequisite: EEX 4241.

EEX 6065 Educational Programs for Secondary Level Exceptional Students (3). Development of curriculum, methodology, and program designs for the education of exceptional students in secondary school settings.

EEX 6072 Mainstreaming Exceptional Children: Issues and Techniques (3). Awareness of issues underlying the movement to mainstream mildly handicapped students. Techniques and procedures for effective mainstreaming of these students.

EEX 6106 Diagnostic Teaching: Acquisition of Language and Reading Skills (3). Concepts in acquisition and development of language and reading skills.

EEX 6203 Advanced Psychological/Sociological Aspects of Exceptionality (3). Advanced psychological and social aspects of handicapping conditions in relationship to classroom behavior and community functioning.

EEX 6208 Medical Aspects of Disability (3). Medical etiology and remediation of disability. Includes genetic, biochemical, nutritional, and physical agents in retardation, learning handicaps, and emotional illness. Prerequisite: EEX 3202 or equivalent.

EEX 6211 Assessment of Behavior I (3). Basic concepts in assessment theory. Competencies in using a variety of standardized tests in assessing and writing educational prescriptions for children with disorder in visual, auditory and haptic processing, in language, or integrative systems.

EEX 6227 Diagnostic Teaching: Educational Assessment (3). Skill in application of assessment theory to classroom diagnosis and to the development of instructional objectives.

EEX 6229 Curriculum Design for Mildly Handicapped Students (3). Delineation of content and objectives that provide the basis for development, application, and evaluation of curriculum strands for mildly handicapped students.

EEX 6235 Curriculum Design for Students with Severe and Profound Handicaps (3). Analysis of ethical and legal bases of curricula for the severely and profoundly handicapped. Specification of curricula content, approaches, models, programs, and components. Prerequisite: EEX 4241 or equivalent.

EEX 6301 Research in Cognitive Process (3). Review of research and theory pertaining to cognitive development of exceptional individuals. Applications of theory and research include cognitive strategy training and enhancement of attention and memory. Prerequisite: EEX 6165 or DEP 6645.

EEX 6417 Guidance and Counseling of Gifted Students (3). Affective development, parental involvement, counseling theories, underachieving gifted.

EEX 6521 Delivery of Services to Exceptional Individuals (3). Analysis and applications of traditional and specialized aspects and techniques of delivery of services involved in planning, developing, implementing, and guiding exceptional individuals programs by special education leadership personnel. Prerequisite: EEX 6051 or equivalent.

EEX 6522 Seminar in Special Education School Law (3). Exploration of various legal aspects as related to the administration and organization of special education and a study of the ethical and legal principles supporting statutory and judicial activities in special education. Prerequisite: EDA 6232.

EEX 6523 Special Education Leadership (3). Analysis of the interactive process within and between groups of special and regular educators. Simulated activities in decision making in special education with development of advocacy and change-agent roles. Prerequisite: EEX 6020 or equivalent.

EEX 6535 Seminar in Special Education School Administration (3). Problems in school administration and patterns of curriculum organization as they relate to the handicapped. Focus on conceptual frameworks, change factors, and future trends in special education. Prerequisite: EEX 6051 or equivalent.

EEX 6612 Diagnostic Teaching: Systems and Behavioral Models (3). Skills in the application of diagnostic data to various instructional strategies and behavioral models.

EEX 6846 Diagnostic Teaching: Advanced Practicum (3). Application of diagnostic teaching models to individualized, remedial, and compensatory instructional programs.

EEX 6863 Supervised Field Experience in Special Education (3-9). Demonstration of the full range of competencies in diagnostic teaching learned throughout the program. Internship placements include a variety of field settings.

EEX 6906 Individual Study in Special Education (1-6). Concepts or competencies contracted for by graduate students with an instructor.

EEX 6927 Workshop in Special Education (1-6). Selected competencies in special education, developed in short-term, intensive workshops.

EEX 6937 Seminars in Special Education (3, repeatable to 9). A. Topics in Mental Retardation. B. Topics in Specific Learning Disabilities C. Topics in Behavior Disorders.

EEX 7980 Doctoral Dissertation (3-20). Original contribution to knowledge in major field. Prerequisite: Doctoral candidate.

EGC 5305 Educational and Vocational Guidance (3). Concepts and skills pertaining to vocational development, information systems, career education programs, educational-vocational counseling, and socio-psychological influences on career development

EGC 5405 Introduction to Counseling (3). Major theoretical concepts in counseling, competencies in relationship-building, interviewing, role-playing, simulation, and micro-counseling .

EGC 6203 Measurement and Appraisal in Counseling (3). Concepts and skills related to the use of tests and other appraisal procedures in counseling. Particular emphasis on career and vocational choice processes. Laboratory experiences included.

EGC 6469 Counseling the Culturally Different (3). Concepts and skills involved in counseling clients with backgrounds different from the majority culture.

EGC 6510 Theories in Group Dynamics (3). Systematic examination of various theories and relevant research used in study of small group phenomena. Prerequisites: EGC 6725, EGC6729, EGC 6709.

EGC 6540 Group Counseling (3). Exploration of roles and function of group counseling in meeting client needs in a variety of settings. Prerequisites: EGC 5405, EGC 6725, EGC 6726.

EGC 6560 Advanced Group Development Laboratory (3). Development of advanced skills in the analysis and understanding of group process, function, and structures through actual observation of an ongoing group. Prerequisites: EGC 6725, EGC 6726.

EGC 6569 Organization Development in Education (3). Analysis of theory and practice of organization development and planned change in educational systems. Prerequisites: EGC 6725, EGC 6726, EGC 6709.

EGC 6605 Professional Problems Counselor Education (3). Competencies in regard to the development of major role and service models and the application of budgeting systems, legal, and ethical standards in a psycho-educational setting.

EGC 6616 Program Evaluation in Pupil Personnel Services (3). Evaluation skills in the student's area of specialization, including competencies in designing evaluation proposals and conducting an actual program evaluation. Prerequisite: EDF 5481.

EGC 6676 Supervised Field Experience in Counselor Education (10). Demonstration of the full range of competencies learned throughout the program in Counseling. Internship placements include a variety of field settings.

EGC 6678 Supervised Field Experience in School Psychology (10). Demonstration of the full range of competencies learned throughout the program in School Psychology. Internship placements include a variety of field settings.

EGC 6705C Principles of Design in Group Intervention: Role of the Consultant (3). Focuses on roll of leader or trainer in complex training design in leadership and human relations training. Emphasis on Diagnostic and behavioral skills that help groups become more effective. Prerequisites: EGC 6725, EGC 6726, EGC 6510, EGC 6509.

EGC 6707 Applied Behavior Analysis in Education (3). Concepts and skills in using behavior modification: functional analysis of behavior, precision teaching, token economies, contingency contracting, parent and/or teacher consultation.

EGC 6708 Advanced Counseling and Consultation: Theory and Practice (3). Extended laboratory experiences stressing the development of skills in behavioral approaches to individual and group counseling, consultation, parent education, and in-service training. Prerequisite: EGC 6707 or equivalent.

EGC 6709 Human Interaction III: Organizational Consultation (3). Theoretical concepts and skills in organizational development and change. Competencies in systems diagnosis and assessment, consultation, agenda setting, team building, decision-making, and feedback. Prerequisite: EGC 6726.

EGC 6725 Human Interaction I: Group Process Laboratory (3). Concepts, research, and theory relative to small group process. Students will participate in small face-to-face task groups, with an emphasis on developing competencies in diagnosis and intervention in small groups.

EGC 6726 Human Interaction II: Analysis of Group Participation (3). Participation in an on-going group with attention given to examination of processes of small group phenomena such as interpersonal communication, norms, decision-making, leadership, authority, and membership. Prerequisite: EGC 6725.

EGC 6822 Advanced Practica in Counseling and Consultation (3). Advanced competencies in counseling and consultation. Prerequisite: Admission to the Certificate or Degree program.

EGC 6905 Individual Study in Pupil Personnel Services (1-6). Competencies contracted for between a student and an instructor in accordance with the student's individual needs.

EGC 6925 Workshop in Psycho-Educational Services (1-6). Selected competencies in counselor education or school psychology, developed in short-term, intensive workshops.

EGC 6936 Seminars in Pupil Personnel Services (3, repeatable to 9). Special topics in relation to counseling or school psychology.

EGC 6469 Counseling the Culturally Different (3). Concepts and skills involved in counseling clients with backgrounds different from the majority culture.

EGC 6510 Theories in Group Dynamics (3). Systematic examination of various theories and relevant research used in study of small group phenomena. Prerequisites: EGC 6725, EGC 6726, EGC 6709.

EGC 6540 Group Counseling (3). Exploration of roles and function of group counseling in meeting client needs in a variety of settings. Prerequisites: EGC 5405, EGC 6725, EGC 6726.

EGC 6560 Advanced Group Development Laboratory (3). Development of advanced skills in the analysis and understanding of group process, function, and structures through actual observation of an on-going group. Prerequisites: EGC 6725, EGC 6726.

EGC 6569C Group Process in Organization (3). In-depth analysis of planned change and the social psychological phenomena effecting organizational functioning. Prerequisites: EGC 6725, EGC 6726, EGC 6709.

EGC 6705C Principles of Design in Group Intervention: Role of the Consultant (3). Focuses on role of leader or trainer in complex training design in leadership and human relations training. Emphasis on diagnostic and behavioral skills that help groups become more effective. Prerequisites: EGC 6725, EGC 6726, EGC 6510, EGC 6509.

EGI 5051 Nature and Needs of the Gifted (3). Identification and placement procedures, history of the field, and psychological factors affecting development of the gifted-talented.

EGI 5232 Educational Procedures and Curriculum for Gifted (3). Basic curriculum models in education of the gifted. Relation of models to planning, implementation in traditional classrooms, resource rooms, and special classes.

EIA 4042 The Role of Industrial Arts in the Schools (3). Competency: Knowledge of the basic philosophy, goals, programs, principles, practices an learning environments in industrial arts, and the relationship of industrial arts to other school disciplines.

EIA 4360 Instruction in Industrial Arts (3). Competency: Application of education principles, practices, and techniques to the teaching of industrial arts. Prerequisite: EDG 3321.

EIA 4941C Student Teaching in Industrial Arts (9). Competency: The utilization of instructional knowledge, attitudes, and skills in industrial arts education instructional situations. Prerequisites: EIA 4360, EVT 3165.

EIA 5811C Equipment and Facilities Planning (3). Competency: Utilization of research, design, and engineering knowledge and skills to plan laboratory facilities and equipment.

EIA 5905 Individual Study (1-3). Competency: The ability to identify, research, and report on an industrial arts problem of interest to the student. Subject to approval of program advisor.

EIA 6683 Instructional Projects Development (3). Competency: Knowledge and skill in developing innovative instructional projects for use in industrial arts programs, grade 7-12. (Includes projects for handicapped and disadvantaged.)

EIA 6931 Analysis of Industrial Arts Education (3). Competency: Knowledge of industrial arts at the national, state, and local levels.

ELD 4240 Educational Planning for Specific Learning Disabilities (3). Concepts and skills with various models of curriculum, instruction, and classroom designs for individuals with specific learning disabilities. Laboratory experiences required. Prerequisites: EEX 4241, EEX 4601.

ELD 5120 Nature and Needs of Secondary Learning Disabled Students (3). Review of learning and social-emotional characteristics of learning disabled adolescents. Integration of research and major developmental theories of learning, growth, and adjustment.

ELD 5250 Preparing Learning Disabled Students for Post-School Adjustment (3). Survey of career/vocational and post-secondary educational alternatives for learning disabled students. Techniques for advising and preparing these students for post-school adjustment are emphasized.

ELD 6323 Advanced Theory and Practice: Specific Learning Disabilities (3). Major concepts in the area of specific learning disability, and skills in the application of these concepts to education. Prerequisite: ELD 4240 or permission of instructor.

EME 3402 Computers for Teachers (3). An introductory course focusing on instructional uses of computers in pre-college education. Designed to provide skills in using computers as a classroom tool.

EME 4103 Production and Use of Audio/Visual Media (3). Knowledge and skill in selecting and producing audio-visual media. Emphasis is placed on student production of audio and visual materials and equipment use.

EME 5315 Instructional Media (3). Development of competencies for effective selection and utilization of instructional media. Consideration of sources, selection, evaluation, and methods of implementing media.

EME 6405 Computers in the Classrooms (3). Learning to use microcomputers in a school setting. Emphasis on evaluating and documenting software; creation of classroom materials leading to development of useful software.

EME 6406 Microcomputers as Teaching Tools (3). This course develops ability to use the microcomputer as an object, medium, and manager of instruction in the classroom. Prerequisite: EME 6405 or EME 3402 or permission of instructor.

EME 6407C Instructional Programming for Teachers (3). An introductory course for teachers to use BASIC to write educational programs appropriate to the teacher's area of specialization. Prerequisite: EME 3402 or EME 6405 or permission of instructor.

EME 6412 Educational Courseware Evaluation and Development (3). This course develops ability to select, evaluate, design , and utilize appropriate software for the school curriculum. Prerequisites: EME 6405 or EME 3402 and one computer language or permission of instructor.

EME 6628 Administrative and Instructional Applications of Technology (3). Topics of this course include data management, instructional management, teleconferencing, scheduling, and productivity software for educational leaders and school managers.

EME 6628 Administrative and Instructional Applications of Technology (3). Topics of this course include data management, instructional management, teleconferencing, scheduling, and productivity software for educational leaders and school managers.

EMR 4251 Educational Planning for the Mentally Retarded (3). Concepts and skills used in planning educational, pre-vocational and vocational programs for the mentally retarded. Laboratory experiences required. Prerequisites: EEX 4241, EEX 4601.

EMR 6852 Advanced Theory and Practice: Mental Retardation (3). Major concepts in the area of mental retardation and skills in the application of these concepts to education. Prerequisite: EMR 4251 or permission of instructor.

ESE 5908 Individual Study (1-3)(ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

ESE 6215 Secondary School Curriculum (3). Examination of programs, trends, and developments in curriculum and instruction in the secondary school. Consideration and evaluation of innovations.

ESE 6425 Research in Secondary Education (1-3)(ARR). Examination and evaluation of research studies in secondary education. Prerequisite: At least one course in research methods or equivalent competency. (Determination of equivalent competency will be made by the instructor.)

ESE 6925 Workshop in Secondary Education (1-3)(ARR). Production and application of materials and techniques in a laboratory or field setting. Prerequisite: Consent of instructor.

ESE 6935 Seminar in Secondary Education (1-3)(ARR). Analysis of selected problems in secondary education.

ESE 6947 Supervised Field Experience (3-9)(ARR). Field work in an educational institution or organization. Prerequisite: Consent of Chairperson of the Division.

EVT 3065 Foundations of Vocational Education (3). Competency: A knowledge of the history of vocational education on the national, state, and local levels.

EVT 3161 Instructional Materials in Vocational Industrial Education (3). Competency: Technical knowledge and skill required to locate and evaluate existing instructional material and to plan, develop, and validate existing instructional materials.

EVT 3165C Course Planning (3). Competency: Basic knowledge and skill in analyzing, planning, and organizing bodies of knowledge for instructional purposes.

EVT 3367 Testing and Measurements in Vocational Education Subjects (3). Competency: Technical knowledge and skill in planning for and using tests and measurements as an integral part of the vocational-technical laboratory/shop teaching-learning process. Prerequisite: EVT 3165.

EVT 3815C Vocational Education Laboratory Management and Safety (3). Competency: Knowledge and skill in analyzing, planning, organizing, and controlling laboratory environments and student's safe learning activities.

EVT 4164 Technical Applications in the Content Area (3). Competency: The ability to incorporate changing technical knowledge and skills of an occupational area into existing vocational education courses of study. Prerequisite: EVT 4946

EVT 4280 Occupational Safety and Health (OSHA) (3). Competency: Knowledge of the history, implications and applications of the Occupational Safety and Health Act of 1970. For vocational and technical teachers, industrial employees, and management personnel.

EVT 4310 Planning and Operating HOE Programs (3). Competency: Identifying, designing, implementing and evaluating Health Occupations Education Program.

EVT 4311 Special Teaching Lab in HOE Programs (3). Competency: Knowledge of institutional structure, organization, policies, and roles of school personnel with actual teaching experience in area of specialization.

EVT 4312 Instructional Strategies and Evaluation in HOE Programs (3). Competency: Knowledge and skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities in Health Occupations Education.

EVT 4351 Teaching Limited-English-Proficient Students in Vocational Education (3). Competency: Knowledge of the history, principles, and practices, as well as skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities for limited English Proficient students.

EVT 4365 Instructional Strategies and Evaluation in Vocational and Technical Education (3). Competency: Knowledge and skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities.

EVT 4668 Emerging Emphasis in Career Education (3). Competency: A knowledge of current trends and issues in reference to developing and integrating career education into current elementary and secondary educational programs.

EVT 4905 Individual Study (1-3). Competency: The ability to identify, research, and report on a special problem of interest to the student. Subject to approval of program advisor.

EVT 4931L Special Topics (1-3). Competency: Analyzes and utilizes recent developments related to problems, practices, programs, and methodologies in organizational settings. Prerequisite: Permission of instructor.

EVT 4940 Special Teaching Laboratory: Vocational Industrial Education and Technical Education (3). Competency: Knowledge of institutional structure, organization, policies, and roles of school personnel, with actual teaching experience in areas of specialization. Prerequisites: EDG 3321, EDG 3322.

EVT 4941 Student Teaching: Vocational Industrial Education and Technical Education (9). Competency: Utilization of instructional knowledge, attitudes, and skills in a variety of instructional situations in the vocational educational setting. Prerequisite: EVT 4940.

EVT 4942C Internship: Training and Development (3). Competency: Application and refinement of competencies in training and development in non-public school settings. Prerequisites: Admission to Organization Training Certificate Program and permission of instructor.

EVT 4946 Field Experience: Technical Updating (3). Competency: The identification and acquisition of current technical knowledge and skills in an occupational area. Prerequisite: Vocational certification.

EVT 4949 Supervised Occupational Experiences (3-9). Competency: Occupational skill developed via field based work-experience in industry, business, or a government agency in the occupation in which the student is preparing to teach.

EVT 4990C Credit by Examination (3-9). Competency: Technical knowledge and skills in an occupational area such as trade, industry, health and technology, as certified by recognized professional examinations such as the National Occupational Competency Test. Credits cannot be used in lieu of upper division professional program courses.

EVT 5078 Technical Education in American Society (3). Competency: Knowledge of the basic role and current status of technical education in an industrial democracy.

EVT 5156 Teaching Career Related Activities (3). Competency: Integration and articulation of career concepts and activities with regular curriculum.

EVT 5168 Curriculum Development in Vocational Education (3). Competency: Basic knowledge and skill in analyzing, planning, organizing and developing curriculum in an area of specialization.

EVT 5255 Cooperative Vocational Education Programs (3). Competency: Knowledge and skill in the basic philosophy, principles, and processes and procedures of the cooperative method in vocational and technical education.

EVT 5265 Supervision and Coordination of Vocational Education Programs (3). Competency: Knowledge and skill in the supervision of personnel, and the coordination of work to achieve institutional goals.

EVT 5315 Improvement of Teaching Strategies in Health Occupations and Nursing Education (3). Competency: Knowledge and skills in methods of teaching, and clinical performance evaluation appropriate to the health field and development of teaching or permission of instructor.

EVT 5317 Occupational Analyses in Health Occupations and Nursing Education (3). Competency: Analysis of current trends in area of health specialty and their application to teaching learning situations in health occupations education. Prerequisites: Currently teaching, permission of instructor, professional liability insurance.

EVT 5369 Educational Media (3). Competency: Knowledge and skill in selecting, developing, and utilizing instructional media forms to communicate or demonstrate concepts.

EVT 5503 Introduction to Vocational Special Needs Education (3). Competency: Knowledge of historical developments, legislation, instructional strategies and program alternatives required to instruct special needs students in vocationally related environments.

EVT 5505 Vocational Laboratory Activities for Teachers of the Handicapped (3). Competency: The use of projects, tools, materials and equipment to facilitate training the occupationally handicapped, physically handicapped, and mentally retarded. Approved for certification for teachers of the mentally retarded.

EVT 5650 Trends and Issues in Vocational Education (3). Competency: A knowledge of the basic philosophical and curricular trends and issues in vocational-technical education at the international, national, state, and local levels.

EVT 5664 Community Relations and Resources for Vocational Education (3). Competency: Knowledge and skill in developing and utilizing community resources and establishing public relations procedures and practices to implement vocational education programs.

EVT 5695 International Comparative Vocational Education (3). Competency: Skill and knowledge in comparison of vocational education in the United States in terms of purposes, systems, and problems with those of selected foreign countries.

EVT 5769 Evaluation in Vocational and Technical Education (3). Competency: Knowledge and skills in the use of tests and measurements, to evaluate teaching and learning effectiveness and the validity of objectives.

EVT 5905 Individual Study (1-3). Competency: The ability to identify, research, and report on a special problem of interest to the student. Subject to approval of program advisor.

EVT 5925 Workshop in Vocational Education (1-6). Competency: Selected competencies related to instructional and technical areas.

EVT 5927 Workshop in Health Occupations Education (1-3). Competency: Selected competencies related to Health Occupations Education.

EVT 6264 Administration of Vocational Education Programs (3). Competency: Knowledge of the principles, practices, functions, and roles of administration, in the operation of vocational education programs.

EVT 6267 Program Planning in Vocational Education (3). Competency: Knowledge, and skill necessary to determine vocational program feasibility and implementation of new programs. Prerequisite: Graduate standing.

EVT 6318 Issues in Health Occupation and Nursing Education. (3). Competency: Identification and examination of current issues in Health Occupation and Nursing Education. Prerequisites: Currently teaching, permission of instructor.

EVT 6359 Vocational Education in a Multicultural Setting (3). Competency: Knowledge and skill in developing and modifying vocational education programs, materials, and practices for a multicultural setting. Prerequisite: Graduate standing.

EVT 6760 Research in Vocational Education (3). Competency: Knowledge and skill in identifying, defining, collecting, analyzing, and synthesizing research-related problems in vocational and adult education. Prerequisite: Graduate standing.

EVT 6790 Program Evaluation in Vocational Technical Education (3). Competency: Knowledge and skill needed to conduct a systematic evaluation of vocational-technical education programs. Prerequisites: Graduate standing and EDF 5432 or equivalent.

EVT 6925 Graduate Workshop in Vocational Education (1-6). Competency: Selected competencies related to professional and program areas.

EVT 6930 Seminar in Vocational Education (3). Competency: The application of knowledge and skills to solve special instructional, curricular and/or administrative and supervisory problems and issues in vocational education. Prerequisite: Graduate standing.

EVT 6946 Supervised Field Experience (3-6). Competency:Application and refinement of competencies in either classroom, laboratory, or administration, and supervision, via school-based field experiences. Placement is subject to approval of program director. Prerequisite: Graduate Standing.

EVT 6947 Internship in Vocational Education (3). Competency: Knowledge and skill in a new leadership setting, relative to the student's selected area of emphasis. Prerequisite: Graduate standing.

FAD 3253 Parenting (3). Overview of changing concepts of parenthood and childhood. Explores contemporary issues concerning parenting with emphasis on maximizing human potential of parents and children. Open to non-majors . Recommended prerequisite: DEP 3001.

FAD 4230 Family Life Cycle (3). Study of the characteristics, problems, potentials, and adjustments unique to the various stages of the family life cycle, including ethnic and cultural influences on family life patterns. Includes field component with community agencies serving families.

FAD 4340/5341 Family Development: Adulthood and Aging (3). Extension of the study of developmental patterns with emphasis on physical, intellectual, social, and emotional influences with particular emphasis on the family and/or family substitute. Graduate students will have additional requirements.

FAD 4800 Management of Human Care Programs (3). Organization, management, and administration of programs providing care services traditionally met within the family such as child care and day care for the elderly. Emphasis on use of family members and community resources for program enrichment.

FAD 4940 Human Development Practicum (2-3). Experience in observing and working with individuals in one or more phases of the human life cycle. Students may select a day care center, public school, nursing home, hospital, or other community service agency. Prerequisites: CHD 3220, 4210, FAD 4230, or equivalent.

FAD 5255 Parent-Child Interaction (3). Effects of varying environments on members of households, interpersonal relationships, family values, life style, and interaction between members.

FAD 5260 Family Development (3). Dynamics of family interaction and structure, including analysis of socioeconomic and cultural influences, crisis-producing situations, and current issues and trends affecting the family unit.

FAD 5450 Human Sexuality (3). Provides a cognitive overview of human sexuality. Main emphasis is on the affective dimension\an exploration of attitudes and values related to sexuality.

FLE 4151 Bilingual School Curriculum and Organization (3). Development of a theoretical understanding of the nature of a bilingualism, a rationale for bilingual education, and a set of principles and skills for organizing, bilingual-bicultural curriculum experiences in the elementary school. Prerequisites: EDF 3723, EDH 3321, EDG 3322.

FLE 4375 Special Teaching Laboratory: Modern Languages (3). Development of instructional skills, techniques, and strategies for teaching modern languages in the junior and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 14 hours in subject matter specialization.

FLE 4870 Teaching Spanish as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching Spanish to non-native speakers of Spanish in the elementary school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, and Spanish proficiency.

FLE 4871 Teaching Spanish to Speakers of Spanish (3). Development of understandings and teaching skills needed in presenting integrated non-official language arts programs which would consider factors of languages and cultures in contrast. Prerequisites: EDF 3723, EDG 3321, EDG 3322, and Spanish proficiency.

FLE 4942 Student Teaching (9). Supervised teaching in a junior or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

FLE 5895 Bilingual Education Teaching Methodologies (3). Examination of various approaches to bilingual education, including specific school and classroom organizations. Development of specific instructional strategies for bilingual students. Issues in elementary, secondary, adult, vocational, and special education will also be addressed.

FLE 5908 Individual Study (1-3)(ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

FLE 5945 Practicum: Modern Languages (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite coursework in education and subject matter area.

FLE 6336 Methods of Teaching Modern Language (3). A modern study of language learning and teaching from the theoretical and practical points of view, including the evaluation and development of techniques and materials for second language teaching. Prerequisite: LIN 3010 or ENG 3500 or equivalent.

FLE 6925 Workshop In Second Language Education (1-3)(ARR). Production and application of materials and techniques in second language education in a laboratory or field setting.

FLE 6938 Seminar In Second Language Testing (3). Advanced study and research on current topics and issues in the field of second language education. Variety of topics to include language testing, language proficiency, language and society, bilingual-bicultural education, and error analysis and the language learner.

HEE 3302 Home Economics Educational Planning (3). Competency: Development and adaptation of curriculum and strategies for the presentation of vocational home economics content in a variety of educational settings. Subject to approval of instructor.

HEE 4104 Instruction In Vocational Home Economics (3). Competency: Ability to apply educational principles, practices and techniques to teaching home economics in varied educational environments. Prerequisite: EDG 3321. Subject to approval of instructor.

HEE 4941 Student Teaching In Home Economics Education (9). Competency: The utilization of instructional knowledge, attitudes, and skills in vocational home economics education instructional situations. Prerequisites: HEE 3302, HEE 4104, HEE 4944.

HEE 4944 Special Teaching Laboratory Home Economics (3). Competency: Knowledge of the educational institution, and utilization of teaching skills, via mini-teaching experiences within areas of home economics in selected institutions. Prerequisites: EDG 3321, EDG 3322.

HEE 5335 Trends In Vocational Home Economics Education (3). Competency: Knowledge of current social, economic and educational issues affecting the field of vocational home economics.

HEE 5360 Teaching Child Development (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5361 Teaching Consumer Education and Family Economics (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5362 Teaching Clothing and Textiles (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5363 Teaching Family Life Education (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5364 Teaching Housing and Home Furnishings (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5365 Teaching Food and Nutrition (3). Course is designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5905 Individual Study (1-3). Competency: The ability to identify, research, and report on a special problem in vocational home economics. Subject to approval of program advisor.

HEE 5927 Special Workshop Home Economics Education (1-3). Competency: Skill in developing, organizing, teaching, evaluating, and administering programs related to specified aspects of the home economics education.

HEE 6126 Teaching Home Economics In Diverse Educational Environments (3). Competency: Knowledge of current and evolving strategies, programs, and materials to teach and evaluate home economics.

HEE 6551 Supervision of Student Teachers In Home Economics (3). Competency: Skill in teaching, observing, and evaluating student teachers in vocational home economics.

HEE 6915 Research In Home Economics Education (3). Competency: The analysis and application of research pertaining to philosophy, curriculum, evaluation, and teacher education in home economics. Subject to approval of program advisor.

HEE 6928 Special Workshop In Home Economics Education (1-3). Competency: Skill in developing, organizing, teaching, evaluating, and administering programs related to specific aspects of home economics education.

HEE 6937 Seminar In Home Economics Education (3). Competency: Application of selected instructional, curricular and/or administrative principles and practices to the solution of problems of special interest to vocational home economics educators. Subject to approval of program advisor.

HHD 3151 Housing: Shelter and Consumer (3). Shelter alternatives and their effect on family and community. Analysis of types of housing and financing plans currently available to consumers.

HHD 4420 Home Furnishings and Equipment (4). Principles involved in the construction, selection, operation and care of furnishings and equipment and their relationship to their environmental use.

HLP 3013 Health and Physical Education for Children (3). Designed to provide competencies necessary for the development and implementation of programs concerning use of leisure time and maintenance of personal health and family life. Prerequisites: EDF 3723, EDG 3321, EDG 3322.

HME 4230 Management of Personal and Family Resources (3). Application of management principles to personal and family decisions including human and non-human resources. Opportunity for community observation of management decisions made by persons of various ethnic groups and/or life styles and an analysis of the effect of these decisions on family relationships and personal success.

HME 5250/EEX 5771 Independent Living for the Handicapped (3). Explores the special home and personal living skills required in order for persons with mental and physical limitations to achieve their maximum independence. Suitable for students in psychoeducational services, health, physical education and recreation, social work, home economics, or anyone planning to work with the elderly or handicapped. Approved for certification for teachers of the mentally retarded.

HOE 4940 Career Traineeship In Home Economics (3-6). Community based, supervised practical experience in a home economics-related career, to provide opportunity for career exploration in a chosen field, and application of knowledge to practical situations. Prerequisite: Permission of instructor.

LAE 4314 Communication Skills II (3). Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of children, using language arts activities to enhance communications skills. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4150.

LAE 4335 Special Teaching Laboratory English (3). Development of instructional skills, techniques, and strategies for teaching English in the junior and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 16-20 hours in subject matter specialization.

LAE 4464 Experiencing Adolescent Literature In the Junior-Senior High School (3). An examination of the most familiar types of literature found in the secondary school English curriculum today; and the development of strategies for organizing and providing a variety of literary experiences of students who differ in intellectual abilities and literary tastes.

LAE 4851 Teaching English as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching English as a second language in the elementary school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, and English proficiency.

LAE 4942 Student Teaching (9). Supervised teaching in a junior or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

LAE 5414 Children's Literature (3). Designed to develop a critical analysis of the purposes, strategies for teaching, and evaluation of literature for children. Prerequisites: RED 4150 and LAE 4314, or their equivalent.

LAE 5908 Individual Study (1-3)(ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

LAE 5945 Practicum: English Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite coursework in education and subject matter area.

LAE 6305 Instruction in Language Arts (Early Childhood) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research in preschool and early childhood education.

LAE 6355 Instruction in Language Arts (Elementary) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research in elementary education.

LAE 6339 Teaching English in the Secondary School (3). Analysis of methods, programs, and materials for teaching English in the junior and senior high school, and development of teaching skills.

LAE 6815 Computers in English and the Language Arts (3). Covers the basics needed to integrate computers in teaching language arts. Emphasizes selecting and learning to use software to meet objectives in language, literature, and composition. Corequisite: English major or equivalent.

LAE 6925-26 Workshop in English Education (1-3)(ARR). Production and application of materials and techniques in English education in a laboratory or field setting.

LAE 6935 Seminar in English Education (3). Designed for advanced students, the readings and discussions will focus on policy issues and recent research in English education. Though primarily for experienced English teachers and supervisors, the course is open to administrators and others, with the consent of the instructor.

LAE 7938 Doctoral Seminar in English Education (3). Advanced doctoral study of current theories and research related to English education. Prerequisites: LAE 6935, EDF 6486.

LEI 3000 Leisure and Recreation in America (3). An introduction to the fundamental concepts of leisure and recreation and their roles in American culture. The class will be structured around a lecture-discussion format.

LEI 3437 Program Development in Parks and Recreation Management (3). Students will attain competencies in developing objectives, planning a program, and implementing and administering the program.

LEI 3524 Personnel Management in Parks and Recreation (3). After a study of human interaction in a management setting, students will demonstrate competencies necessary for hiring staff, conducting group dynamics and communicating to the public.

LEI 3542 Principles of Park and Recreation Management (3). An exploration of the field of recreation and parks, including career areas. Students will be expected to demonstrate an understanding of management responsibilities and supervisory level principles and theory.

LEI 3624 Turf Grass Management (3). A practical approach to the care and maintenance of special grasses such as those found on golf courses and other recreational facilities.

LEI 3630 Care and Maintenance of Grounds (3). A study of procedures for maintaining outdoor facilities. Students will be expected to display competence in proper maintenance of areas normally found in parks and recreation centers.

LEI 4590 Seminar in Parks and Recreation Management (3). A discussion of current problems, issues and trends in parks and recreation management, which will help the student develop those competencies necessary to deal with everyday aspects of particular programs.

LEI 4700 Programming for Special Populations (3). Principles and practices in planning and implementing programs in special community-group settings. Special emphasis will be placed on a systematic approach through problem-solving techniques.

LEI 4940 Internship I (9). An on-the-job training program designed to enable students to develop those competencies which can only be gained from practical experience.

LEI 4941 Internship II (12). Advanced undergraduate supervised internship in a parks and recreation organization. Prerequisites: LEI 4940 and permission of instructor.

LEI 5440 Program Development in Parks and Recreation (3). The development of specific programs in parks and recreation with emphasis on special programs for young children, retardates, handicapped persons, and the elderly.

LEI 5510 Program Administration in Parks and Recreation (3). A detailed analysis of administrative procedures and responsibilities in connection with parks and recreation facilities and personnel.

LEI 5595 Seminar in Parks and Recreation Administration (3). A discussion of current problems, issues, and trends in administration of parks and recreation programs.

LEI 5605 Physical and Social Bases of Parks and Recreation Planning (3). Concentration on major phases of pre-design, design, development, actualization of park and recreation facilities. Course will explore funding, budget, site selection, layout, and maintenance.

LEI 5907 Individual Study in Parks and Recreation Administration (3). An opportunity for individuals interested in various aspects of park and recreation administration to work on their own under the close supervision of an advisor. Permission of the instructor and department chairperson is required.

LEI 6922 Supervised Field Experiences in Parks and Recreation Administration (3-9). A practical experience for individuals interested in administrative responsibilities. Permission of the instructor and Department Chairperson required.

MAE 4312 Inquiry in Mathematics in the Elementary School (3). Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of children, using mathematics as a mode of inquiry. Prerequisites: EDF 3723, EDG 3321 EDG 3322, MAE 4810 and MAE 4811, or equivalent.

MAE 4333C Special Teaching Laboratory: Mathematics (3). Development of instructional skills, techniques, and strategies for teaching mathematics in the junior and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 24 hours in subject matter specialization, including MTG 3212, STA 3321, COP 3112, or approved electives; permission of instructor required.

MAE 4942 Student Teaching (9). Supervised teaching in a junior or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

MAE 5555 Diagnosis and Remediation in Mathematics (3). Strategies for studying symptoms, causes, and consequences of difficulties experienced by children in elementary school mathematics. Includes supervised case study and theoretical models. Prerequisite: MAE 4312.

MAE 5648 Computers in Mathematics Education (3). Examines the use of computers (microcomputers) in secondary school mathematics. Designing, evaluating, and using varied types of programs in mathematics classes.

Learning to use computers to design mathematics curriculum.

MAE 5908 Individual Study (1-3). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

MAE 5945 Practicum: Mathematics Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite coursework in education and subject matter area.

MAE 6305 Instruction in Mathematics (Early Childhood) (3). Refinement of skills related to program development, methods of teaching, selection of materials and review of research, in preschool and early childhood education.

MAE 6318 Instruction in Mathematics (Elementary) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.

MAE 6336 Teaching Mathematics in the Secondary School (3). Analysis of methods, programs, and materials for teaching mathematics in the junior and senior high school, and development of teaching skills. Prerequisites: Undergraduate secondary math methods and permission of instructor.

MAE 6645C Workshop on Metric Education (1-3). A workshop on Metric Education: trends, teaching strategies, programs, and materials.

MAE 6899 Seminar in Mathematics Education (3). Designed to provide the advanced student with deeper understanding of the current state of mathematics education. Major emphasis is on current trends and curriculum projects on the national and international levels, as well as evaluation and research related to these trends.

MAE 6923 Workshop: Elementary School Mathematics (3). Production and application of materials and strategies for teaching mathematics in elementary and middle schools.

MAE 6925-28 Workshop in Mathematics Education (1-3). Production and application of materials and techniques in math education in a laboratory or field setting.

MAE 7938 Doctoral Seminar in Mathematics Education (3). Advanced doctoral study of current theories and research related to mathematics education. Prerequisites: EDF 6486, minimum of 3 doctoral level math courses.

MUE 3313 Experiencing Music in the Elementary School (3). Designed to provide the student with competencies necessary for the development and implementation of music experiences in the elementary curriculum. Prerequisite: Music course.

MUE 3332 Special Teaching Laboratory I (3). Development of instructional skills, techniques, and strategies for school music performance organizations through laboratory and field experiences. Prerequisites: EDF 3723, EDG 3321, EDG 3322.

MUE 4341 Special Teaching Laboratory II (3). Field-based methods, materials and instructional skills course, which prepares students for internship in an elementary and secondary school setting. Prerequisites: EDF 3723, EDG 3321, EDG 3322, MUE 3332.

MUE 4940 Student Teaching (9). Supervised teaching in an elementary school (5 weeks) and a secondary school (5 weeks). Prerequisites: EDF 3723, EDG 3321, EDG 3322; MUE 3332, MUE 4341; RED 4325, and 20 semester hours of the coursework required in music.

MUE 5907 Directed Study in Music Education (1-3). Individual investigation in one or more areas of music education.

MUE 5928 Workshop in Music (1-3). Applications of materials and techniques in music in a laboratory or field setting.

MUE 5945 Practicum: Music Education (6). Supervised teaching. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite coursework in education and the subject matter area.

MUE 6305 Instruction in Music (Early Childhood) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.

MUE 6316 Instruction in Music (Elementary) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.

MUE 6349 Methodology of Music Teaching (3). Analysis of methods, programs and materials for teaching music in the public schools, and development of music pedagogy skills.

MUE 6925-26 Workshop in Music Education (1-3). Applications of materials and techniques in music education in a laboratory or field setting.

MUE 6938 Seminar in Music Education (3). Seminar in music programs in the United States and other countries, and current issues and problems facing the music educator.

PEL 1111 Beginning Bowling (1). Designed to develop basic skills and knowledge of bowling. Emphasis is on participation, fitness, and skill development and knowledge of bowling as a recreational activity. This course will not count towards graduation except for Physical Education majors.

PEL 1121 Beginning Golf (1). Designed to develop basic skills and knowledge of golf. Emphasis is on participation, fitness, skill development, and knowledge of golf as a recreational activity. This course will not count towards graduation except for Physical Education majors.

PEL 1211 Beginning Softball (1). Designed to develop basic skills and knowledge of softball. Emphasis on participation, fitness, and skill development and knowledge of softball as a recreational activity. This course will not count towards graduation except for Physical Education majors.

PEL 1341 Beginning Tennis (1). Course to include knowledge and instruction of fundamental skills in tennis, rules, techniques, and playing strategy. This course will not count towards graduation except for Physical Education majors.

PEL 1346 Beginning Badminton (1). Course to include knowledge and instruction of fundamental skills in badminton rules, techniques, and playing strategies. This course will not count towards graduation except for Physical Education majors.

PEL 1441 Beginning Racquetball (1). Designed to develop skills and knowledge of racquetball. Emphasis is on participation, fitness, and skill development and knowledge of racquetball as a recreational activity. This course will not count towards graduation except for Physical Education majors.

PEL 1511 Soccer (1). Presents basic techniques, tactical considerations, and several theoretical aspects of the game. Emphasis is on developing fitness through participation (Pass/Fail grade only). This course will not count towards graduation except for Physical Education majors.

PEL 2321 Beginning Volleyball (1). Designed to develop basic skills and knowledge of volleyball. Emphasis is on participation, fitness, and skill development and knowledge of volleyball. This course will not count towards graduation except for Physical Education majors.

PEL 2621 Beginning Basketball (1). Designed to develop basic skills and knowledge of basketball. Emphasis is on development of skill, participation, fitness, and knowledge of basketball as a recreational activity. This course will not count toward graduation except for Physical Education majors.

PEM 1104 Conditioning (1). This course is designed to promote attitudes, understandings, and skills related to the development and maintenance of the health and performance related components of physical fitness. This course will not count towards graduation except for Physical Education majors.

PEM 1141 Aerobic Fitness (1). This course is designed to provide students with the skills and knowledge necessary to achieve and maintain desirable state of aerobic fitness. This course will not count towards graduation except for Physical Education majors.

PEM 1405 Self Defense for Women (1). Female students will be taught physical and mental techniques to defend themselves from personal attack. This course will not count towards graduation except for Physical Education majors.

PEM 1441 Karate (1). The basic Karate techniques and advanced application of these techniques will be taught. The class goal after completion of instruction will be certification as yellow belt first degree for qualified students (Pass/Fail grade only). This course will not count towards graduation except for Physical Education majors.

PEM 2101 Foundations of Fitness (3). Presents concepts related to the evaluation, development, and maintenance of fitness, including principles of training, weight control and stress reduction. Provides instruction in lifetime sports. This course will not count towards graduation except for Physical Education majors.

PEM 2131 Nautilus Weight Training (1). Exercise on Nautilus equipment to improve cardio-respiratory endurance, muscular strength, and flexibility. After being taught how to use this equipment and fitness goals are established, each student will be monitored, via time controlled workouts, to improve the level of physical wellness. This course will not count towards graduation except for Physical Education majors.

PEN 1121 Beginning Swimming (1). The course will cover the beginning swimming skills as described in the certified American Red Cross beginning swimmers program. This course will not count towards graduation except for Physical Education majors.

PEN 1122 Intermediate Swimming (1). The course will cover the intermediate swimming skills as described in the certified American Red Cross intermediate swimmers program. Prerequisite: PEN 1121 or permission of instructor. This course will not count towards graduation except for Physical Education majors.

PEN 2113 Life Saving (2). Successful completion of this course will lead to American Red Cross swimming certification in life saving. Prerequisite: Completion of intermediate swimming skills. This course will not count towards graduation except for Physical Education majors.

PEO 4011 Methods and Curriculum in Team Sports for Grades 6-12 (3). Content and teaching strategies for selected team sports for grades 6-12. Emphasis on basketball, field hockey, soccer, volleyball, speedball, and flag and touch football. Prerequisite: EDG 3321.

PEO 4004 Coaching Sports (3). Students will examine the philosophy, organization, and skills necessary for coaching interscholastic sports in an educational environment.

PEO 4031 Methods and Curriculum in Individual Sports (3). Includes content and methods for teaching the following individual sports: tennis, golf, badminton, handball, racquetball, archery, and wrestling for grades 6-12. Prerequisite: EDG 3321.

PEO 4041 Games in the Elementary and Middle School (3). The study of the scope, structure, and sequence of games in Grades K-8. Emphasis on educational games and skill progressions for selected sports.

PEP 3205 Gymnastics in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the gymnastics program in grades K-8. Emphasis on educational gymnastics and simple formal gymnastics.

PEP 4102 Methods and Curriculum for Fitness Development Classes (3). Includes content and methods for teaching activity/theory classes in which the primary emphasis is the development of fitness. Prerequisite: PET 3351.

PEP 5115 Fitness Instruction (3). The course prepares the student for the American College of Sports Medicine's Fitness Instructor Certification examination. Prerequisite: PET 3360.

PEP 5116 Exercise Specialists (3). The course prepares the student for the American College of Sports Medicine's Exercise Specialists Certification Examination. Prerequisites: PET 3360 and PET 5377.

PEP 5117 Fitness for Older Adults (3). The course explores the value of physical activity for improving the physical and mental well being of older adults. Emphasis is placed on exercise prescription and supervision of programs for those working with older adults. Prerequisite: PET 3360.

PEQ 2115 Water Safety Instructor (2). Successful completion of this course will lead to American Red Cross swimming certification as Water Safety Instructor. Prerequisite: Red Cross certification in life saving. This course will not count towards graduation except for Physical Education majors.

PET 3310 Kinesiology (3). Students study the anatomical and mechanical principles of movement and apply this knowledge in the analysis of physical education and athletic sport activities. (Includes laboratory class periods.)

PET 3351 Exercise Physiology (3). Students study the factors in exercise physiology and make application of this knowledge in laboratory situations.

PET 3442 Physical Education in the Secondary School (3). Students will study methods, philosophy, and curriculum for physical education in secondary schools, grades 6-12. Field experiences will be required in addition to class work.

PET 3640C Adapted Physical Education (3). Students gain knowledge of scientific factors and develop and implement physical education programs for special populations. Laboratory and Field Experience required.

PET 4035 Motor Development (3). The study of the development of fundamental move3ment skills. Emphasis on the observation and interpretation of the movement patterns of children and the selection of activities to promote skillful movement.

PET 4230C Motor Learning (3). Students will demonstrate knowledge and application of the physiological and psychological factors affecting motor skill acquisition and performance.

PET 4383 Evaluation in Exercise Physiology (3). The course prepares students to utilize and select or construct appropriate instruments for the assessment of fitness. Prerequisite: PET 3360.

PET 4401 Organization and Administration of Physical Education for Grades 6-12 (3). An analysis of the organizational and administrative aspects of physical education programs for grades 6-12.

PET 4450C Special Teaching Laboratory: Physical Education (3). Students will develop the instructional skills and strategies in the teaching of physical education.

PET 4464 Special Teaching Lab: Physical Education for Grades K-8 (3). Emphasis on development of comprehensive physical education programs for grades K-8. Includes development of curriculum materials, analysis of teacher behaviors, development of teaching skills, and evaluation techniques. Prerequisites: DAE 3371, PEP 3205, PEO 3041, EDG 3321, EDF 3827.

PET 4510 Evaluation in Physical Education (3). Students will demonstrate competencies in motor skill testing, grading, and analysis of written test scores necessary for successful teaching in physical education.

PET 4622C Athletic Injuries (3). Students will demonstrate knowledge of the proper care and prevention of athletic injuries through the application of acceptable training techniques.

PET 4940 Internship in Exercise Physiology: Undergraduate (3). Supervised clinical experience designed to offer the student experience in graded exercise testing and exercise leadership. Prerequisites: PET 3360 and PET 5931.

PET 4945L Student Teaching (12)(F,S). During the student's internship, the student will complete written assignments and demonstrate those competencies which are characteristic of a competent physical education teacher.

PET 4946 Sports Management Internship (6-9). Students must complete a supervised sports management internship program in an approved business or recreation setting. Prerequisite: Completion of required program courses.

PET 5135 History of Physical Education and Sport (3). Students will study the history of sport and will take part in writing their own review of sport from a chosen time in history.

PET 5216 Sports Psychology (3). Course will include an analysis of psychological variables which might influence physical performance. Topics to be discussed include personality development, motivation, anxiety, tension, stress, aggression, attribution theory, and social facilitation. The course is intended for prospective physical educators and others interested in motor performance.

PET 5238C Perceptual Motor Learning (3). Students will demonstrate knowledge and understanding of various approaches to, and theories of, perceptual motor learning, with special emphasis in physical education. Perceptual motor tasks will be performed as well as taught by the students.

PET 5256C Sociology of Sport (3). Students will demonstrate a thorough understanding of the sociological bases of sport and will actively engage in a field study involving a particular phase of sport and society.

PET 5387 Exercise Test Technology (3). The course prepares the student for the American College of Sports Medicine's Exercise Test Technology Certification examination. Prerequisite: PET 3360.

PET 5426 Curriculum Development In Physical Education (3). Students will develop their own curricula after examining and discussing modern curriculum theory. A problem-solving approach will be employed as students test their programs at various grade levels in the public schools.

PET 5436 Physical Education Curriculum In the Elementary School (3). Examination of objectives, content, methods of teaching, and evaluative techniques in elementary school physical education. Emphasis on curriculum development and refinement of teaching skills.

PET 5476 Sports Management and Administration (3). Examination of skills and knowledge required in the management and administration of sports-related careers in athletics, recreation, or industry. Prerequisites: Basic management courses: MAN 3025, PAD 4432 or equivalent.

PET 5606C Sports Medicine (3). The class will focus on the application of medical knowledge to sport with the aim of preserving the health of an athlete, while improving performance.

PET 5906 Individual Study (1-3). Students will work independently on a topic concerning some phase of physical education or sport under the guidance of a faculty member. Registration is by permission of advisor.

PET 5925 Workshop In Physical Education (1-3). Production and or application of materials and techniques for physical education in a classroom and or field setting.

PET 5931 Special Topics In Exercise Physiology (1-3). Designed to present contemporary issues and practices in exercise physiology. Prerequisite: PET 3360.

PET 5936 Special Topics In Physical Education (1-3). Designed to present contemporary issues and practices in physical education and sport.

PET 6597C Survey of Research In Physical Education (3). Following a survey of research in physical education, students will demonstrate competencies in applying this knowledge to teaching situations in the public schools.

PET 6925-27 Workshop In Physical Education (1-3). Production and or application of materials and techniques for physical education in a classroom and or field setting.

PET 6932 Seminar In Physical Education (3). Students will participate in the exploration, examination, and discussion of problems, issues, and trends in physical education and sport.

PET 6940 Internship In Exercise Physiology: Graduate (3-6). Clinical experience, supervised by physician, designed to provide the student with competence in exercise prescription and leadership in preventive and rehabilitative outpatient exercise programs. Prerequisite: PET 5931.

PET 6944 Supervised Field Experience (3-9). Students may use this course to become involved in an in-depth study, research project, or any one of a variety of other activities, under the guidance of a faculty member.

RED 4150 Communication Skills I (3). Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of reading. Prerequisite: Permission of instructor required.

RED 4311 Communication Skills III (3). Designed to implement and expand upon the teaching competencies developed in LAE 4314 and RED 4150, in a classroom management practicum. Prerequisites: EDF 3723, EDG 3321, EDG 3322, LAE 4341.

RED 4325 Special Teaching Laboratory: Reading (3). Development of instructional skills, techniques, and strategies for teaching reading in the junior and senior high school. Attention to attaining competence in subject-matter related reading skills.

RED 4925 Workshop In Reading Education (1-3). An opportunity for students to continue to develop competency in a specified area of reading education. No prerequisites. School of Education

RED 5447 Analysis and Production Reading Materials (3). Exploration, creation, and evaluation of basic reading materials, commercial and non-commercial. Prerequisite: RED 4150 or equivalent.

RED 5448C Teaching Reading by Computer (3). Evaluation and creation of computer programs for teaching reading in grades 4-12. No prior computer experience is required.

RED 5911 Individual Study In Reading (1-3). Individual investigation in the area of instruction. Permission of instructor required.

RED 6155 Instruction In Reading (Elementary) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research in elementary education.

RED 6247 Organization and Supervision of Reading Program (3). The organization and supervision of reading programs; problems of organization and supervision; continuity of school-wide programs, emphasis on leadership responsibilities. Prerequisites: EDF 5481, EDF 5430

RED 6305 Instruction In Reading (Early Childhood) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.

RED 6336 Reading In the Content Areas (3). Strategies for developing the reading abilities of students in specific subject areas. Stresses vocabulary and comprehension development, study skills, library usage, reasoning, and motivating reading. Prerequisites: None.

RED 6338 High School Reading Programs (3). Designed to provide competencies for identifying, organizing, teaching, and evaluating secondary reading programs. Corrective and accelerated reading are emphasized. Prerequisite: RED 6155 or RED 6305.

RED 6515 Programs of Remediation In Reading (3). A course demonstrating corrective and remedial procedures; application of specific psychological, pedagogical, and psychotherapeutic techniques. Prerequisites: RED 6155 or 6305, RED 6546, or their equivalents.

RED 6546 Diagnosis of Reading Difficulty (3). Technique for analyzing and clarifying reading difficulties. Prerequisite: RED 6155 or 6305, or its equivalent.

RED 6747 Research In Reading (3). A course to study significant research in reading and research methodology. Involves planning and research in reading. Permission of instructor required. Prerequisites: EDF 5430, EDF 5481.

RED 6805 Practicum In Reading (3). An analysis of reading difficulties through various teaching techniques and programs.

RED 6845 Clinical Procedures In Reading (3). Supervised experience, resulting in diagnosis, prescription and evaluation of particular children in a clinical setting. Prerequisites: RED 6515, RED 6546.

RED 6925 Workshop In Reading (1-3). An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields in reading education.

RED 6926 Workshop In Reading and Language Arts (1-3). Offers opportunities for elementary school teachers to increase their understanding of reading language arts instruction, K-6. Emphasis on integrating language arts into reading.

RED 6931 Seminar in Reading Education (3). An advanced master/beginning doctoral course dealing with advances in the theory and practice of reading instruction. Prerequisites: Permission of instructor and RED 6747.

RED 6971 Thesis in Reading Education (6). Design, implementation, and written report of an original research investigation in reading education. Prerequisites: Advanced graduate standing and consent of instructor.

RED 7938 Doctoral Seminar in Reading Education (3). Advanced study in current theories and research related to reading education. Prerequisites: RED 6747, RED 6931, EDF 6486.

SCE 4310 Inquiry in Science in the Elementary School (3). Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of children, using science as a mode of inquiry. Prerequisites: EDF 3723, EDG 3321, EDG 3322, one Physical Science, one Biological Science.

SCE 4330 Special Teaching Laboratory: Science (3). Development of instructional skills, techniques and strategies for teaching biological and physical sciences in the junior and senior high schools. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 16-20 hours in subject matter specialization.

SCE 4944 Student Teaching (9). Supervised teaching in a junior or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

SCE 5435 Secondary Science Laboratories: Methods & Materials (3). Increase the quantity and quality of laboratory experiences for secondary students by managing the laboratory safely, selecting appropriate activities, and evaluating student performance.

SCE 5905 Individual Study (1-3). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

SCE 5945 Practicum: Science Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite coursework in education and subject matter area.

SCE 6141 Science Education in History (3). This course analyzes the impact of scientific, technological, and social advances upon curriculum and instruction in science education.

SCE 6245 Science Education for High Achieving Students (3). Program options, instructional designs and materials, and evaluation of gifted and other high achieving science students will be addressed.

SCE 6306 Instruction in Science (Early Childhood) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.

SCE 6315 Instruction in Science (Elementary) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in elementary education.

SCE 6635 Teaching Science in the Secondary School (3). Analysis of methods, programs, and materials for teaching science in the junior and senior high school, and development of teaching skills.

SCE 6637 Science Education and Community Resources (3). This course examines the utilization and cultivation of community resources to meet science education goals for various populations.

SCE 6745 Science Education Policy, Change, and School Improvement (3). Enhance ability to assume leadership in science school improvement by learning ways to (1) influence policy, (2) bring about change, and (3) increase personal satisfaction. Prerequisite: 5 years of teaching experience or permission of the instructor.

SCE 6925-26 Workshop in Science Education (1-3). Production and application of materials and techniques in science education in a laboratory or field setting.

SCE 6930 Workshop in Content, Methods, and Materials of Teaching Elementary Science (1-3). Focus on content, methods, and materials needed for teaching science in the elementary school, K-6.

SCE 6931 Special Topics in Science Education (3). An individual topic or limited number of topics not otherwise offered in the curriculum that facilitate science teaching in the elementary school will be selected.

SCE 6933 Seminar in Science Education (3). Analysis of research trends and selected topics in science education. Mainly for graduate students in secondary science education. Individual needs and interests will determine the fine structure of the course content.

SCE 7165 Curriculum Development in Science Education (3). Analysis of theoretical basis of curriculum development in Science Education Evaluation of currently available material. Development and testing of science curriculum materials. Prerequisites: SCE 6933, EDF 6486.

SCE 7761 Research in Science Education (3). Application of research methodology to Science Education. Analysis of current research. Development of research proposal in Science Education. Conduct field study. Prerequisites: SCE 6933, EDF 6486, SCE 7165. Corequisite SCE 7938.

SCE 7938 Doctoral Seminar in Science Education (3). Advanced doctoral seminar in current theories and research related to science education. Prerequisites: SCE 6933, EDF 6486.

SPA 3000 Introduction to Language Development and Communication Disorders (3). Skills in assessing and classroom programming for language development and for various speech and language disorders of children.

SPS 6191 Psycho-Educational Assessment I: Intellectual (3). Competencies in the assessment of intellectual ability and adaptive behavior in children. Corequisite: SPS 6191L for School Psychology majors. No corequisite for other majors.

SPS 6191L Psycho-Educational Assessment I: Lab (2). Practical skills in the assessment of intellectual ability and adaptive behavior in children. Corequisite: SPS 6191.

SPS 6192 Psycho-Educational Assessment II: Process (3). Competencies in the assessment of psycho-educational processes in children and their relationship to intellectual ability. Corequisite SPS 6192L for School Psychology majors. No corequisite for other majors. Prerequisite: SPS 6191.

SPS 6192L Psycho-Educational Assessment II: Lab (2). Practical skills in the assessment of psycho-educational processes in children. Emphasis on assessing disorders in the visual, auditory, haptic, language, and sensory integration areas. Corequisites SPS 6191, SPS-6191L.

SPS 6193 Psycho-Educational Assessment III: Behavior (3). Competencies in behavioral and personality assessment of students within the school setting. Emphasis on projective testing and behavioral observations. Corequisite: SPS 6193L. Prerequisites: SPS 6191, SPS 6192.

SPS 6193L Psycho-Educational Assessment III: Lab (2). Practical skills in projective and behavioral assessment of students within the school setting. Corequisite: SPS 6193. Prerequisites: SPS 6191, SPS 6192.

SPS 6805 Professional Problems in School Psychology (3). Competencies in regard to the development, role and function of school psychologists. General orientation and legal and ethical issues included.

SSE 4312 Inquiry in Social Studies in the Elementary School (3). Designed to develop and refine those teaching competencies which allow the student to perform effectively as a teacher of children, using social studies as a mode of inquiry. Prerequisites: EDF 3723, EDG 3321, EDG 3322.

SSE 4380C Developing a Global Perspective (3). Theory, content, and practice. Introduction and utilization of learning materials and teaching strategies in Global Education for K-12.

SSE 4384C Special Teaching Laboratory: Social Studies (3). Development of instructional skills, techniques, and strategies for teaching social studies in the junior and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required.

SCE 4942 Student Teaching (12). Supervised teaching in a junior or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

SSE 5908 Individual Study (1-3)(ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

SSE 5945 Practicum: Social Studies Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Master's Program and completion of prerequisite coursework in education and subject matter area.

SSE 6305 Instruction in Social Learning (Early Childhood) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research, in preschool and early childhood education.

SSE 6355 Instruction in Social Learning (Elementary) (3). Refinement of skills related to program development, methods of teaching, selection of materials, and review of research in elementary education.

SSE 6394 Social Studies in Other Nations (3). The course will examine the concept of social studies as a subject area in elementary and secondary schools found in both developed and developing nations. Comparisons and contrasts will be made. Prerequisites: SSE 6633, SSE 6939.

SSE 6633 Teaching Social Studies in the Secondary School (3). Analysis of methods, programs, and material for teaching social studies in the junior and senior high school, and development of teaching skills.

SSE 6795 Seminar: Research in Social Studies Education (3). The course will examine research in social studies education. The course will serve as a lab for developing a dissertation research design. Prerequisite: EDF 5481. Corequisites: EDF 6486, STA 5166, EDF 6403 or EDF 6475.

SSE 6925-28 Workshop in Social Studies Education (1-3). Production and application of materials and techniques in social studies education in a laboratory or field setting.

SSE 6929 Workshop in Content, Methods, and Materials of Teaching (1-3). Focus on content, methods and materials needed for teaching social studies in the elementary school, K-6.

SSE 6939 Seminar in Social Studies Education (3). Designed for advanced students, the readings and discussions will focus on policy issues and recent research in social studies education. Though primarily for experienced social studies teachers and supervisors, the course is open to administrators and others, with the consent of the instructor.

SSE 7938 Doctoral Seminar in Social Studies Education (3). Advanced doctoral study in current theories and research related to social studies education. Prerequisites: SSE 6939, EDF 6486.

TSL 5142 Curriculum Development in English as a Second Language (3). Description, analysis, planning, design, and evaluation of curriculum in English as a second language (K-adult). Prerequisite: TSL 6341.

TSL 5371 Special Methods of TESOL (3). Investigation of modern techniques for the teaching of oral and written communication in English to non-native speakers of English, including the evaluation and development of materials for English to speakers of other languages. Issues in elementary, secondary, adult, vocational, and special education will also be addressed. Prerequisite: LIN 3010.

College of Education

Acting Dean	*Emma W. Rembert*
Associate Dean and Director of Graduate Programs	*Stephen M. Fain*
Assistant Dean for Administration	*Robert M. Wolff*
Director for Student Affairs	*Robert S. Winter*
Assistant Dean for North Miami Campus/Broward	*Janice R. Sandiford*
Chairpersons:	
Curriculum and Instruction	*Luis A. Martinez-Perez*
Educational Policy and Human Resource Development	*Robert Vos*
Director of Contracts and Grants	*Frank Mandley*
Coordinator of Undergraduate Student Advising	*Muriel V. Barth*

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Woods, Sandra L., Ed.D. *(Rutgers University), Associate Professor, Curriculum and Instruction*

College of Engineering and Applied Sciences

College of Engineering and Applied Sciences

The College of Engineering and Applied Sciences is composed of one school and two free-standing departments committed to the development of professionals who will serve the community in a wide variety of fields. In addition, there are two units in the College solely devoted to research and other creative activities.

Bachelor's Degree Programs are offered in the following fields of study:
Apparel Management
Architectural Technology
Civil Engineering
Construction Management
Electrical Engineering
Industrial Engineering
Interior Design
Mechanical Engineering

Master's Degrees can also be earned in the following fields of study:
Civil Engineering
Construction Management
Electrical Engineering
Environmental Engineering
Environmental and Urban Systems
Landscape Architecture

Undergraduate Professional Certificates are available in:
Advanced Apparel Design
Apparel Manufacturing Management
Apparel Merchandizing Management
Heating, Ventilation and Air Conditioning Design
Industrial Safety
Production and Manufacturing

The programs of the College are directed toward the practical use of scientific, engineering, and technical principles to meet the objectives of industry, business, government, and the public.

The College provides each student with the opportunity to develop marketable skills and to obtain an education which will prepare him or her for a rewarding career and personal growth.

Underlying the programs of the College is a recognition that the growing impact of technology upon the quality of life is growing and that the proper application of technology is critical to meeting current and emerging human needs.

The College is actively engaged in a number of special programs as a service to the community and the University. One of these activities is the International Association for Housing Science, an organization with membership from more than twenty nations, dedicated to improving housing technology and production, as well as studying the interdisciplinary aspects of housing. The College faculty is actively engaged with business, industry, and government. Faculty members are participating in a variety of applied research projects in such areas as energy, transportation, solid waste disposal, biomedical devices and instrumentation, water resources, computer engineering, artificial intelligence, manufacturing, robotics, telecommunications, micro-electronics, structural systems biotechnology, microelectronics, etc.

Admission

Applicants to the College must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College. To be approved as "affiliated students", applicants must submit to the department the desired coursework and proof of the appropriate prerequisites for the requested coursework. The maximum number of credits allowed are 15 undergraduate and 12 graduate. The maximum number of credits allowed in a certificate program is the number required for the certificate.

Admissions and Program Planning - Bachelor's Degree. - Non-Engineering Programs

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Admission Requirements: All non-engineering Bachelor's degree programs of the College are designed to integrate the community college graduate or junior-level transfer student into curricula which have established certain minimum competencies or skills as the requirements for the four-year degree. Consequently, requirements may be met in a variety of ways and through various sequences which are accommodated at the freshman and sophomore levels by the college parallel (A.A.) program of the community colleges and by four-year colleges. The College admits to full junior standing a student who meets one of the following requirements:

1. Associate of Arts degree from an accredited community college.
2. Junior Level (60 semester hours) in good standing at a four-year college.

Others will be considered as exceptions on an individual basis. A student transferring with the Associate's degree (A.A.) is normally awarded 60 transfer credits toward the Bachelor's degree. A transfer student from a four-year college may not receive more than 90 credits of transfer toward the Bachelor's degree. The transferability of upper-level technical courses is determined by the advisor and is a part of the establishment of the student's program of study.

General Requirements for a Baccalaureate Degree in the Engineering Programs

In order to obtain a Bachelor's degree from the College, each student must satisfy the following minimum requirements:

1. Obtain the minimum number of semester credits required by the specific program.. Some majors require more than the minimum number of credits. Specific requirements beyond the minimum requirements are described in the sections devoted to the various departments in the College.
2. Complete at least 35 semester credits in the College of Engineering and Applied Sciences.
3. Attain a minimum grade-point average of 2.0 in all engineering courses taken at the University.
4. Satisfy the general education requirements of the State of Florida for the Bachelor's degree.
5. Satisfy the particular requirements for his or her own major and all University requirements for graduation.

Academic Advisors

A student who has been accepted to a degree program in the College must obtain and consult an advisor prior to the first class enrollment. An advisor may be obtained by contacting the Chairperson of the Department in which an academic major is desired. Continued contact (at least once per semester) with the advisor is urged to review progress and select courses for each succeeding semester. Such contact is required until an approved program of study is completed.

Courses taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of DR or DF.

Cooperative Education

A Cooperative Education (Co-Op) Program is conducted by the College in conjunction with the Department of Cooperative Education in the Division of Student Affairs. In this program, students spend alternate semesters in school full- time and fully employed in industry in a technical position directly related to their major. Academic credit, normally three per semester, is given for the work periods, and is counted toward the degree. Students receive full pay for their work in industry. Placement in co-op positions is arranged by the Co-Op Program and includes both local and national industrial, business, and governmental agencies. Co-Op students must agree to spend at least three work periods in industry and must be able to complete the upper division program within two calendar years. Applicants for the program are evaluated by the College and should contact the Associate Dean. Because of the requirement for three work periods, students should enter the program during the first semester of the junior year. Inquiries from lower-division students, prior to transfer to the University, are encouraged since work may be arranged immediately upon enrollment. The Co-Op program also offers the Parallel Co-Op whereby a student might alternate work and study during the same semester by attending the University part-time and working part-time in industry.

Academic Appeal Procedures

The College endeavors to provide an atmosphere in which the special needs of each student are served.

1. The student shall make a reasonable effort to resolve the complaint with the instruc-

tor concerned within 15 days of the alleged occurrence (receipt of grade, etc.).

2. If the situation cannot be satisfactorily resolved, the student may appeal in writing to the Department Chairperson within ten days of the informal meeting with the instructor. The written appeal should include the nature and conditions of the problem and a summary of the informal meeting with the instructor. Within ten days of the receipt of the written appeal, the Chair shall discuss the appeal with the student and the instructor, and attempt to resolve the problem to the satisfaction of all concerned. The Chair will provide a statement of the resolution to both student and faculty.

3. If the situation cannot be resolved to the satisfaction of all concerned in (2), i.e., the student, the instructor, and the Chairperson, any of these may refer the case to the Dean of the CEAS. This written appeal should include the nature and conditions of the problem, all previous statements and all appeal materials utilized in Steps 2 and 3. Within ten days of the written appeal, the Deans shall convene the student grievance committee as defined by the constitution of the CEAS Faculty Council. The Committee shall not include faculty members previously involved in the situation.

The student appelate may choose to have another FIU student present the nature and condition of the problem to the Committee in his/her stead. In this case, the student appelant will assume the role of observer and allow his/her representative to present the problem.

Within five days of the Committee meeting, the grievance committee Chairperson will provide the Dean with a written report of the Student Academic Appeals Committee's decision.

Within five days of receipt of the Committee's report, the Dean will provide a written decision.

The Dean's decision is final. There is no further appeal process.

All deliberations shall be private and held confidential by all members of the Committee and those involved in the review.

Master of Science Degree Programs

The College offers Master of Science degrees in Civil Engineering, Construction Management, Electrical Engineering, Environmental Engineering, Environmental and Urban Systems, and Landscape Architecture. Prospective graduate students should refer to the appropriate section of the catalog, or contact the graduate advisor in either program.

Note: The programs, policies, requirements and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics, and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice.

Florida International University and the CEAS believes in equal opportunity practices which conform to all laws against discrimination and is committed to non-discrimination with respect to race, color, creed, age, handicap, sex, marital status, or national origin. Additionally, the University is committed to the principle of taking the positive steps necessary to achieve the equalization of educational and employment opportunities.

Apparel Studies

Adele Smith, *Associate Professor and Chairperson*
Judy Grossbard, *Instructor*
Greta Howard, *Lecturer*
Wayne Kolbeck, *Assistant Professor*
Robert Merkel, *Associate Professor*

The Department of Apparel Studies offers a baccalaureate degree in Apparel Management with specializations in design, manufacturing, or merchandising management. All majors are required to obtain industrial experience through the completion of career traineeships. Undergraduate and graduate level courses in clothing and textiles are also offered in the Department to serve other University programs.

Professional Certificate programs in Apparel Manufacturing Management, Advanced Apparel Design, and Apparel Merchandising Management are also available. Refer to Certificate section for detailed information.

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Required: Thirty six semester credits of general education courses including: English composition (12), Social Science (6), Humanities (6), Natural Science (6), Mathematics (6) including college algebra or higher.

Recommended: Courses in fashion, accounting, marketing, economics, art, psychology, and management.

Apparel Design Management

Students who have completed equivalent basic courses in fashion design may apply to take the proficiency examination to qualify for immediate admittance into the advanced design courses. All others will be required to complete 107 semester hours at the University including the Basic Fashion Design Courses. Basic Fashion Design Courses: (37 semester hours)

CTE 3731L	Fashion Illustration[1]	3
CTE 3703	Design Inspiration	3
CTE 3743L	Commercial Pattern Drafting I[1]	3
CTE 3744L	Commercial Pattern Drafting II[1]	3
CTE 3751L	Draping I[1]	3
CTE 3753L	Draping II[1]	3
CTE 3721L	Creative Design I[1]	3
CTE 3722L	Creative Design II[1]	3
CTE 3363L	Commercial Garment Production I[1]	3
CTE 3401L	Survey of Textiles	4
ART 1201	2-D Design	3
ART 1202	3-D Design	3

[1] These courses are presently not being offered at FIU. Equivalent courses are taught at Miami Dade Community College or may be completed at another approved fashion school.

Advanced Design Courses: (23 semester hours) (Students must pass a proficiency examination before admittance into the Advanced Design Courses.)

CTE 3364L	Commercial Garment Production II	3
CTE 3715	Fabrication of Designs	3
CTE 3733L	Advanced Fashion Illustration	3
CTE 3755L	Advanced Draping and Pattern Making	4
CTE 3771L	Menswear Design	2
CTE 3772L	Childrenswear Design	2
CTE 4773L	Active Sportswear Design	2
CTE	(Required Design Electives)	4

Other Program Requirements: (46 semester hours)

CTE 3010	Orientation	1
HME 3210	Personal and Career Management	3
FAD 3232	Relationships	3
COA 3410	Consumer Resources	3
CGS 3060	Introduction to Computers and Computer Applications	3
CTE 3761	Fashion Production and Distribution	3
CTE 3748L	Pattern Grading Analysis	2
CTE 3762	Cutting Analysis and Material Utilization	3
CTE 3763	Machine Evaluation and Selection	3
CTE 3821	Quantitative Decisions I	3
CTE 4442	Textile and Apparel Testing	1
CTE 4442L	Textile and Apparel Testing Lab	2
CTE 4602	Fashion and Culture	3
CTE 4767	Apparel Quality Assurance	3
CTE 4768	Industrial Apparel Assembly and Costing	3
CTE 4890	Apparel Career Seminar	1
CTE 4880	Apparel Field Experience	6

Apparel Manufacturing Management

This specialty provides an overview of typical operations in apparel production, as well as supervisory and management skills necessary to oversee these operations. The program utilizes the resources available in the South Florida apparel industry.

Major Requirements: (62 semester hours)

CTE 3010	Orientation	1
COA 3410	Consumer Resources	3
CGS 3060	Introduction to Computers and Computer Applications	3
CTE 3401L	Survey of Textiles	4
CTE 3742L	Commercial Pattern Analysis	2
CTE 3748L	Pattern Grading Analysis	2
CTE 3761	Fashion Production and Distribution	3
CTE 3762	Cutting Analysis and Material Utilization	3
CTE 3763	Machine Evaluation and Selection	3
CTE 3766	Apparel Work Measurement	3
CTE 4442	Textile and Apparel Testing	1
CTE 4442L	Textile and Apparel Testing Lab	2
CTE 4767	Apparel Quality Assurance	3
CTE 4768	Industrial Apparel Assembly and Costing	3
CTE 4769	Apparel Production Planning and Scheduling	4
CTE 4880	Apparel Field Experience	6
CTE 4890	Apparel Career Seminar	1
EIN 3359	Industrial Financial Decisions	3
EIN 3354	Engineering Economy	3
STA 3132	Business Statistics	3
Approved Electives		6

Apparel Merchandising Management

The Apparel Merchandising specialization is designed for students seeking management careers in the fashion industry in buying, sales, advertising, customer relations, operations, visual merchandising, manufacturing, and merchandise management.

Major Requirements: (67 semester hours)

CTE 3010	Orientation	1
COA 3410	Consumer Resources	3
CGS 3060	Introduction to Computers and Computer Applications	3
CTE 3200	Clothing and Consumer	2
CTE 3312L	Apparel Construction and Analysis	2
CTE 3401L	Survey of Textiles	4
CTE 3761	Fashion Production and Distribution	3
CTE 3852	Visual Merchandising	3
CTE 4442	Textile and Apparel Testing	1
CTE 4442L	Textile and Apparel Testing Lab	2
CTE 4602	Fashion and Culture	3
CTE 3821	Quantitative Decisions I	3
CTE 4822	Quantitative Decisions II	3
CTE 4827	Fashion Buying and Merchandising Strategies	3
CTE 4831	Apparel Inventory Management	3
CTE 4832	Product Knowledge	3
CTE 4880	Apparel Field Experience	6
CTE 4890	Apparel Career Seminar	1
FAD 3232	Relationships	3
HME 3210	Personal and Career Management	3
MAR 3023	Marketing Management	3
MAR 4153	Retail Management	3
or		
CTE 3815	Apparel Retail Operations	
MAR 4154	Cases in Retail Management	3
MAR 4303	Advertising Management	3
or		
CTE 4851L	Fashion Promotion	

Minor in Apparel Manufacturing Management

Intended for students in management or engineering seeking expertise specific to the apparel industry.

Required Courses: (15 semester hours)

CTE 3762	Cutting Analysis and Material Utilization	3
CTE 3763	Machine Evaluation and Selection	3
CTE 3766	Apparel Work Measurement	3
CTE 4768	Industrial Apparel Assembly and Costing	3
CTE 4767	Apparel Quality Assurance	3
or		
CTE 4769	Apparel Production Planning and Scheduling	4

Minor in Apparel Merchandising Management

Intended for business, marketing, or vocational education majors interested in expertise specific to apparel retailing and wholesaling enterprises.

Required Courses: (16 semester hours)

CTE 3401L	Survey of Textiles	4
CTE 3761	Fashion Production and Distribution	3
CTE 3821	Quantitative Decisions I	3
CTE 4827	Fashion Buying and Merchandising Strategies	3
One CTE advised elective		3

Course Descriptions

Definition of Prefixes

COA—Consumer Affairs; CTE—Clothing and Textiles; HME—Home Management and Equipment

COA 3410 Consumer Resources (3). Evaluation of information needed to make effective consumer choices. Includes sources of consumer help and protection, pertinent legislation, and ecological conditions with which consumer interacts. Experiences provided in product and service comparison.

COA 4905 Independent Study (1-3).

COA 4942 Career Traineeship in Consumer Affairs (3-6). Community based, supervised practical experience in consumer-related career to provide exploration and application opportunities. Permission of instructor required.

CTE 3010 Orientation (1). Introduction to the specialties in the Apparel Studies Department and orientation to the University. Includes personal assessment of basic skills needed for academic and vocational success.

CTE 3050 The Fashion World (1). Study of the evolution of fashion from concept to consumer. Various fashion careers will be explored. Field trips and guest speakers will be utilized. (For non-majors)

CTE 3200 Clothing and Consumer (2). Study of various topics pertaining to the consumer and his or her apparel choices including clothing as a mean of communication, optical illusions, art elements, care of clothing, and success dressing.

CTE 3204 Professional Wardrobe Coordination (1). Analyzes effect of professional image on career success. Prepares students to assist others in planning wardrobes based on personal qualities and career settings. Open to non-majors.

CTE 3310L Principles of Clothing Construction (3). Includes experience and understanding of basic principles of clothing construction and leads to more advanced techniques and learning. Course individualized according to student's needs and expertise.

CTE 3312L Apparel Construction and Analysis (2). Evaluation of apparel construction methods. Includes construction of a simple garment.

CTE 3363L Commercial Garment Production I (3). Fundamentals of apparel construction using industrial machines and techniques. Samples will be sewn.

CTE 3364L Commercial Garment Production II (3). Advanced techniques in apparel construction using industrial machines and techniques. Introduction to cost factors related to production. Prerequisite: CTE 3363L or equivalent.

CTE 3401L Survey of Textiles (4). Study of the physical properties of textile fibers, yarns, fabrics, color applications, and finishes, as they relate to care, performance, and consumer satisfaction. Identification and analysis of fibers and fabrics will be emphasized.

CTE 3461 Apparel Fabrics (2). Contributions of fiber type, yarn and fabric structure, dyeing, and finishing to manufacturing characteristics and marketability of apparel fabrics.

CTE 3703 Design Inspiration (3). Study of resources utilized for inspiration when designing apparel. Emphasis will be on historic costume, the arts, and other areas of design.

CTE 3715 Fabrication of Designs (3). Selection and coordination of fabrics for apparel designs. Includes analysis of fabrication choices as they relate to production problems, design features, fashion trends, cost factors, and marketability. Prerequisite: CTE 3401L.

CTE 3721L Creative Design I (3). Application of basic design skills and creativity to the sketching and execution of design projects in the categories of sportswear, holiday fashions, and dresses. Prerequisites: CTE 3744L, CTE 3753L, CTE 3363L.

CTE 3722L Creative Design II (3). Emphasis on designing and fabricating fashion lines. Advanced draping and pattern techniques will be used to develop patterns. Sample garments will be constructed. Prerequisite: CTE 3721L.

CTE 3731L Fashion Illustration (3). Application of design concepts to fashion illustration. Development of the fashion figure as basis for construction sketches and finished illustrations. Prerequisite: ART 1201. Corequisite: ART 1202.

CTE 3733L Advanced Fashion Illustration (3). Advanced illustration work in rendering fabric drapery characteristics, construction details, color, and texture. Prerequisite: CTE 3731L.

CTE 3742L Commercial Pattern Analysis (2). Overview of theory, geometric principles, and methods of pattern making for apparel and allied products. Development of a set of patterns. Corequisite: CTE 3748L.

CTE 3743L Commercial Pattern Drafting I (3). Development of master patterns from measurements. Emphasis on precision patternmaking according to industry standards.

CTE 3744L Commercial Pattern Drafting II (3). Use of master patterns in developing design ideas according to industry standards. Prerequisite: CTE 3743L.

CTE 3748L Pattern Grading Analysis (2). Overview of theory, principles, and methods used in commercial pattern grading in accordance with accepted size ranges and specifications. Corequisite: CTE 3742L.

CTE 3751L Draping I (3). Basic fundamentals of pattern making through draping basic silhouettes.

CTE 3753L Draping II (3). Additional practice in use of draping techniques for fashion design. Industry standards will be used in the development of specific fashion styles. Prerequisite: CTE 3751L.

CTE 3755L Advanced Draping and Patternmaking (4). Development of additional skills in designing garment features using appropriate industrial draping and pattern techniques, including sloper manipulation. Analysis of fit emphasized. Prerequisites: CTE 3744L and CTE 3753L.

CTE 3761 Fashion Production and Distribution (3). Study of apparel industries, with supervised observation of various aspects of production and distribution.

CTE 3762 Cutting Analysis and Material Utilization (3). Overview of cutting operations including fabric inspection, scaling, marking, spreading, cutting, and costing. Effective material utilization emphasized.

CTE 3763 Machine Evaluation and Selection (3). Study of thread, needles, stitch, and seam formation as it relates to apparel products. Survey of industrial sewing and pressing equipment and attachments. Cost considerations and payback periods examined.

CTE 3766 Apparel Work Measurement (3). In-depth study of procedures used to establish piece-work rates for sewing operations by using time study and M-T-M methods. Includes incentive systems, follow-up studies,and how to set an apparel plant on a piece work system.

CTE 3771L Menswear Design (2). Application of commercial techniques to the creative design of casual apparel for men. Prerequisite: CTE 3755L.

CTE 3772L Childrenswear Design (2). Application of commercial techniques to the creative designing of apparel for children. Prerequisite: CTE 3755L.

CTE 3815 Apparel Retail Operations (3). Study of the non-merchandising functions of an apparel store such as advertising, control, personnel, customer services, distribution. Includes guest presentations on maintenance, warehousing, and security.

CTE 3821 Quantitative Decisions for Fashion Retailing I (3). Review of basic retailing math and application of financial management principles, with emphasis on relationships between sales volume, stock turnover, expenses, and profits.

CTE 3852L Visual Merchandising (3). Study and application of the principles and techniques of creative 'in store' and window displays. Field work included.

CTE 4340L Advanced Clothing Construction (3). Additional experience in handling special fabrics, pattern and garment fitting, and application of principles and techniques of commercial clothing construction. Prerequisite: CTE 3310L or equivalent.

CTE 4352L/5354L Tailoring (3). Application of custom tailoring techniques to construction of suit or coat, with emphasis on fabric selection and pattern alteration. Graduate students will have additional requirements. Prerequisite: CTE 4340L or equivalent.

CTE 4442 Textile and Apparel Testing (1). Fundamentals of the commercial testing methods used to evaluate fabric and garment performance. Includes statistical analysis of test results. Prerequisite: CTE 3401L or equivalent. Corequisite: CTE 4442L.

CTE 4442L Textile and Apparel Testing Laboratory (2). Laboratory to accompany CTE 4442.

CTE 4347L/5348L Pattern Alterations (3). Stresses importance of pattern selection for individual figure types and pattern alteration for special fitting problems. Students will construct a garment, make sample pattern alterations for special fitting problems, and alter a ready-made garment. Graduate students will have additional requirements. Prerequisite: CTE 3310L or equivalent.

CTE 4471L/5475L Creative Textiles (3). Fundamental principles of designing and constructing textile fabrics. Includes macrame, batik, tie-dying, weaving, knitting, and crocheting. Graduate students have additional requirements.

CTE 4602 Fashion and Culture (3). Study of evolution of apparel and its relationship to psychological, sociological, technological, historical, and cultural factors.

CTE 4767 Apparel Quality Assurance (3). Techniques and procedures used to inspect and evaluate the quality level of textile fabrics, in-process apparel products, finished apparel products, and goods received by the retailer.

CTE 4768L Industrial Apparel Assembly and Costing (3). Analysis of the theory and methods of assembly of apparel and allied products. Costing of apparel products is examined as it relates to the wholesale pricing of the product. Prerequisites: CTE 3763 and 3766.

CTE 4769 Apparel Production Planning and Scheduling (4). Integrates all phases of apparel production. Correlations and interactions among sales, sales forecasting, fabric purchasing, trim purchasing, production planning, scheduling, and control. Prerequisite: CTE 4768.

CTE 4770L Swimwear Design (2). Application of commercial design techniques to the special problems of creative swimwear design. Prerequisite: CTE 3755L

CTE 4773L Active Sportswear Design (2). Application of commercial techniques to the creative design of active sportswear for men and women. Prerequisite: CTE 3755L.

CTE 4774L Womenswear Design (2). Application of commercial techniques to the creative design of apparel for women, excluding sportswear. Prerequisite: CTE 3755L.

CTE 4775L Sportswear Design (2). Application of commercial techniques to the creative design of sportswear for misses and juniors. Prerequisite: CTE 3755L.

CTE 4814 Apparel Entrepreneurship (3). Planning and management of small retail apparel stores. Emphasis on special problems inherent in merchandising of fashion apparel. Prerequisites: CTE 3821 and CTE 4827.

CTE 4822 Quantitative Decisions II (3). Further exploration of financial management in apparel sales organizations based on dollar and unit figures. Emphasis on profit influences. Prerequisite: CTE 3821 or equivalent.

CTE 4827 Fashion Buying and Merchandising Strategies (3). Study of major considerations involved in buying and marketing of fashion merchandise. Includes development of merchandise assortment plans, with emphasis on effective store distribution. Prerequisite: CTE 3821.

CTE 4831 Apparel Inventory Management (3). Study of management of fashion merchandise to increase sales and profit. Includes use of computer hardware and software to aid inventory control and decision-making. Special factors of distribution and stock control for chain and branch stores, as well as warehouse operations, will be studied. Prerequisite: CTE 4827 or equivalent.

CTE 4842 Product Knowledge (3). Extension of merchandising principles to include non-textile materials such as leather, furs, accessories, and home furnishings. Investigation of materials, construction, styles, and merchandising requirements. Prerequisite: CTE 3761

CTE 4851L Fashion Promotion (3). Study of processes and actions that move fashion merchandise including evaluation of their effectiveness to the retailer. Includes guest presentations in advertising, display, public relations. Students plan, organize and produce a Fashion Show.

CTE 4880 Apparel Field Experience (3-6). Supervised 'on-the-job' training and periodic seminars. Consent of instructor required.

CTE 4890 Apparel Career Seminar (1). Exploration of local fashion-related career opportunities and proficiencies required for these positions. Guest speakers utilized.

CTE 4905/5905 Independent Study (1-3).

CTE 4930 Special Topics (1-3). For groups of students who wish an intensive study of topics not otherwise offered in the University. Consent of faculty supervisor and department chairperson is required.

CTE 5345 New Trends in Clothing Construction (3). Study of the latest techniques for sewing today's fabrics, including some factory methods. Prerequisite: CTE 4340L or equivalent.

CTE 5355L Tailoring Menswear (3). Application of tailoring techniques commercially used in the production of menswear, through the construction of a knit jacket and trousers. Prerequisite: CTE 4340L or equivalent.

CTE 5426L Recent Developments in Textiles (3). Exploration into recent developments in textile fibers and fabrics. Laboratory exercises in textile-testing procedures.

CTE 5746L Pattern Design (3). Principles of pattern fitting will be explored through the construction of a basic sloper. Samples of various pattern design techniques will be constructed. Students will design and construct at least one garment. Prerequisite: CTE 4347L or CTE 4340L.

CTE 5885 Apparel Field Experience (3-6). Supervised field placement in local apparel settings for professionals in apparel careers. Permission of chairperson required.

CTE 5930 Textiles and Clothing Seminar (1-3). By permission of instructor only.

FAD 3232 Relationships (3). Emphasizes attitudes, feelings, communication, life styles in varying interpersonal relationships. Includes human sexuality component. Open to non-majors.

HME 3210 Personal and Career Management (3). Application of management principles to personal and family living, as well as career effectiveness. Emphasis on planning and organizational skills as assets in the business world as well as tools with which to promote personal and family satisfaction. Open to non-majors.

Construction

Ralph B. Johnson, *Assistant Professor and Chairperson*
Leonardo Alvarez, *Assistant Professor*
Gabriel Aurioles, *Associate Professor*
William C. Bassett, *Assistant Professor*
Jaime Canaves, *Associate Professor*
Bhaskar Chaudhari, *Professor*
Jack Clark, *Professor*
Eugene Farmer, *Assistant Professor*
Gisela Lopez-Mata, *Assistant Professor*
Jose Lozano, *Assistant Professor*
Iraj Majzub, *Professor*
Julio Otazo, *Assistant Professor*
Vivian Salaga, *Assistant Professor*
John Sanderson, *Associate Professor*

The Construction Department is dedicated to the teaching of interdisciplinary areas of Interior Design, Architecture Technology, Landscape Architecture, and Construction Management. The undergraduate and graduate programs, ranging from design to construction implementation, are developed to reflect the needs of the various disciplines and skills applicable to each facet of the building industry. The graduate program in Landscape Architecture is a professional degree and has been developed in affiliation with the University of Florida's Department of Landscape Architecture. The graduate program in Construction Management is a stand-alone program and will admit students for the first time this Fall.

As a major factor in the economy, construction plays an important role in society. As such, the programs offered allow the students to understand the scope of this field, and select the specific area that can be effective in their careers.

Articulation agreements have been made with Broward Community College and Miami Dade Community College to facilitate the transfer of graduates of appropriate lower division programs to programs in the Department of Construction.

Only 'C' grades or higher are accepted for transfer of applicable prerequisite and core courses from other institutions. No grade below a 'C' will be accepted for graduation in prerequisite or core courses.

Students must petition the faculty of the department in writing for any deviation of the established policies. The faculty will decide on the cases on an individual basis.

Architectural Technology

This program gives the student a multidisciplinary knowledge of the major areas related to the practice of Architecture. Emphasis is on the balance and relationships between the technical and managerial aspects of the Architectural project with design. These aspects include cost estimating and economic planning; the systematic approaches to building design, design development, preparation of working drawings and specifications; areas of field management and office administration; strength of materials; and theory and design of structures. Furthermore, the student is given the option of concentrating on one or more of the above areas by selecting related electives in consultation with his or her advisor.

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. In addition, FIU undergraduates with less than 48 semester hours, must meet all the lower division Architectural Technology prerequisites.

Upper Division Transfer Applicants

Completion of an Associate's degree in Architectural Technology or pre-architecture, or related area or completion of at least 60 semester hours, and submission of a portfolio. All applicants for admission will have their credentials reviewed by a faculty/professional Admissions Review Board prior to full admission into the program. Conditional admission can be granted pending review of credentials. Applicants should consult the department for specific information.

Graduation Requirements

To graduate, students must complete all the Lower Division program requirements including General Education requirements, and all Upper Division Program Core requirements and Senior Portfolio review by a Faculty/ Professional Jury

With the approval of the Advisor and Admission Review Board, upper division students must complete a minimum of 63 semester hours to graduate, which includes the following core requirements or their equivalent:

Upper Division Program (63 semester hours minimum)

Major Requirements: (60 semester hours)

ARC 3450	Architectural Innovation for Construction	3
ARC 3484	Advanced Architectural Drawing and Design I	4
ARC 3586	Building Systems	3
ARC 3786	Survey of Architectural History	3
ARC 4039	Architectural Design	4
ARC 4270	Professional Office Practice	4
ARC 4335	Site Development	4
ARC 4485	Advanced Architectural Drawing and Design II	4
ARC 4590	Structural Design	4
BCN 3402	Mechanics of Materials	4
BCN 3611	Construction Cost Estimating	3
BCN 3703	Management of Construction Projects	3
BCN 3740	Legal Aspects and Construction Labor Law	3
BCN 3761	Specification Writing	4
BCN 3762	Codes and Specifications	3
BCN 4260	Quality Control in Construction	3
BCN 4561	Environmental Control in Buildings	4

Electives: Selected with an advisor to meet degree requirements and program objectives (minimum semester hours required): 3

Construction Management

This program is designed to develop individuals for management, supervisory or technical positions in the construction industry and related business, and for those who would engage in their own construction-related business activities. Emphasis is on technical and management essentials, such as cost estimating, project field management and operations, methods and equipment, codes and specifications, contract administration, job planning, scheduling, inspections, site development, construction materials, construction economics, cost control, labor relations, and safety.

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. In addition, FIU undergraduates with must meet all the lower division Construction Management prerequisites.

Upper Division Transfer Applicants

Completion of an Associate Degree in Construction or related area of study or completion of at least 60 semester hours.

Graduation Requirements

To graduate, students must complete all lower division program requirements including General Education requirements, and all Upper Division Program Core requirements.

Upper Division Program: (65 semester hours minimum)

Major Requirements: (59 semester hours)

ARC 4270	Professional Office Practice	4
ARC 4335	Site Development	4
ARC 4590	Structural Design	4
BCN 3240	Construction Methods and Equipment	3
BCN 3402	Mechanics of Materials	4
BCN 3611	Construction Cost Estimating	3
BCN 3640	Economic Planning for Construction	3
BCN 3703	Management of Construction Projects	3
BCN 3720	Construction Costs and Scheduling	3
BCN 3730	Construction Safety	3
BCN 3740	Legal Aspects and Construction Labor Law	3
BCN 3762	Codes and Specifications	3
BCN 4260	Quality Control in Construction	3
BCN 4561	Environmental Control in Buildings	4
BCN 4612C	Advanced Estimating	3
BUL 4111	Business Law I	3
EIN 3354	Engineering Economy	3
	and a Construction Accounting course	3

Electives: Selected with an advisor to meet degree requirements and program objectives (minimum semester hours required): 6

Interior Design

The Interior Design program is designed to enable graduated students to work with other professionals such as architects and engineers in the design of commercial and institutional projects. The program incorporates the recommendations and standards of national and local professionals societies and prepares students for work in a design firm or for self-employment at the professional level.

The interdisciplinary program allows students to understand the important aspects in the construction industry such as methods and materials, costs, codes and environmental control systems. Together with the development of skills, the student explores through the different projects specific aspects of the profession such as furniture, fixtures and equipments.

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. In addition, FIU undergraduates must meet all the lower division Interior Design prerequisites.

Upper Division Transfer Applicants

Completion of an Associate's degree in Interior Design or related area of studies, or completion of at least 60 semester hours.

Graduation Requirements

To graduate, students must complete the lower division program requirements including General Education requirements, and all Upper Division Program core requirements.

Upper Division Program

With the approval of the advisor, students must complete a minimum of 62 credits selected from the following list:

Major Requirements: (56 semester hours)

ARC 3786	Survey of Architectural History	3
ARC 4270	Professional Office Practice	4
BCN 3611	Construction Cost Estimation	3
BCN 3740	Legal Aspects and Construction Labor Law	3
BCN 3761	Specifications Writing	4
BCN 4561	Environmental Control in Building	4
IND 3100	History of Interiors I	3
IND 3130	History of Interiors II	3
IND 3210	Advanced Interior Design I	4
IND 3423C	Sources, Materials and Cost Estimating for Interiors	3
IND 4220	Advanced Interior Design II	4
IND 4221	Institutional Interiors	3
IND 4311	Media and Methods of Presentation	3
IND 4430	Lighting Design	3
IND 4441C	Furniture Design	3
IND 4905	Independent Study (Thesis)	5

Electives: Selected with an advisor to meet degree requirements and program objectives (minimum semester hours required): 6

Graduate Degree Programs

The department offers a graduate Master's program in Landscape Architecture. Students wishing to apply to this program should contact the Office of the Dean. The Department also offers a Master of Science in Environmental and Urban Systems in cooperation with the Department of Civil and Environmental Engineering. For specific details on the program, refer to that department's section. In addition, A new master's program in Construction Management will be offered this Fall.

Landscape Architecture

Degree: **Master of Landscape Architecture**

The graduate program in Landscape Architecture is designed to prepare graduates for professional practice in this field. By applying their understanding of the natural and built environments, landscape architects plan and design projects that range from gardens to regional space system to national parks. Whether for public or private use, the landscape architect is concerned with the quality or relationships among people and their environments.

The program is open to students holding a baccalaureate degree, or its equivalent, comparable in standards and content to a bachelor's degree from the University. No academic or experiential training in Landscape Architecture is required.

The program is composed of 92 semester hours of course work distributed as follows:

Landscape Architecture Design	36
Design Implementation	23
History and Theory	9
Professional Practice Studies	9
Other courses	15

Students with undergraduate degrees in Landscape Architecture, or architectural related fields, may petition for advanced standing. Students granted advanced standing may enter the program at a level commensurate with their undergraduate educational achievement in architecture.

Construction Management

The master's degree is fast becoming the entry-level requirement for middle and upper-level management positions in major construction firms - particularly those firms engaged in high cost projects or doing business on a national or international scale.

The primary goal of this program is to serve the individual, the community, and the industry by providing the advanced skills and particular knowledge essential for success in this highly competitive business.

The program is open to applicants holding the baccalaureate degree in construction management or in allied field. Applicants lacking a background in academic studies or comparable field and office experience will be guided in the selection of appropriate prerequisite courses.

The 36 credit-hour program is divided as follows:

21 credit hours in coursework
9 credit hours in directed electives
6 credit hours in a thesis or individual study of equal rigor.

Course Descriptions

Definition of Prefixes

ARC—Architecture: BCN—Building Construction; IND—Interior Design; LAA—Landscape Architecture

ARC 1110 Graphic Communication I (4). The introductory graphic course. Basic techniques and materials: orthographic and isometric projections, perspective, freehand and mechanical drawings, lettering, pencil, ink, film, papers, and boards.

ARC 1311 Design Graphics I (4). The introductory design course. Students will utilize appropriate physical, economic, sociological, and environmental data in the application of design process to design programs and solutions. Prerequisites: ARC 1110.

ARC 1461 Methods and Materials of Construction I (3). The first course in methods and materials. Physical and chemical properties of materials, manufacture, size and shape, and performance under normal loads in a variety of light construction assemblies. Corequisite: BCN 1252.

ARC 2111 Graphic Communication II (4). The second course in graphic communication. Students will develop presentation skills and broaden their visual experience. Presentations will incorporate two and three-dimensional design elements. Prerequisite: ARC 1110.

ARC 2313 Design Graphics II (4). The second design course. Solutions to design problems emphasizing space, form, texture, color, orientation, circulation and structure, and utilizing perspective and model-making presentation skills. Prerequisites: ARC 1311, and 2111.

ARC 2462 Methods and Materials of Construction II (3). Methods, materials, and details of general construction emphasizing the physical and chemical properties of materials; the behavior of materials and assemblies under normal applied loads. Prerequisites: ARC 1461 and BCN 1252. Corequisite: BCN 2256.

ARC 3127 Graphic Communication (3). To develop the understanding and graphic skills necessary to the conception and communication of design and engineering technology. The course is flexible in order to accommodate different student backgrounds. Basic graphic methods and media including orthographic and isometric projection; one and two-point perspective; composition, lettering, and presentation techniques.

ARC 3210 Architectural Concepts of Construction (3). Introduction to principles of design and perception. Study of user's need relationship with environmental and human factors. Examination of architectural design ideas and their development. Prerequisite: ARC 3466 or equivalent.

ARC 3450 Architectural Innovations for Construction (3). Specialized study in an area of interest to the student, where architectural design is used with new methods of construction due to advancing technological developments. Drawings and field surveys. Prerequisite: Junior standing.

ARC 3466 Materials and Methods of Construction (3). A study of the types of construction and materials used in buildings. How materials are properly installed and inspected, including the use of special equipment, in accordance to specifications, codes, standards, and agencies' recommendations.

ARC 3484 Advanced Architectural Drawing and Design I (4). Methodology of planning and design of architectural projects, with special emphasis on working drawings and detail drawings. Prerequisite: ARC 2111 or equivalent.

ARC 3586 Building Systems (3). Introduction to the problems related to the production of mass housing and applications of 'industrialization' to the process of building. Systematic analysis and evaluation techniques of modular construction. Prerequisite: ARC 2462 or equivalent.

ARC 3786 Survey of Architectural History (3). Comprehensive study of architectural forms, styles and construction techniques throughout history. Prerequisite: ARC 3466 or equivalent.

ARC 4039 Architectural Design (4). Integrated study of basic design concepts and principles of design. Development of architectural design products, presentation drawings, plans and quantity surveys. Prerequisite: ARC 2111 or equivalent.

ARC 4270 Professional Office Practice (4). Assignments in office administration, negotiation of contracts, fee structure, client and public relations. Business organization, procedure scheduling and task allocation within an architectural office. Prerequisite: BCN 3740 or equivalent.

ARC 4335 Site Development (4). Fundamentals of site planning: physical, economic, social, and governmental constraints affecting development zoning; land use controls; subdivision layout; modular design; site characteristics (soil, geology, topography); drainage; access. Design and construction techniques. Prerequisite: BCN 2256.

ARC 4485 Advanced Architectural Drawing and Design II (4). New techniques in the preparation of working drawings, detail drawings; updating and review. Preparation of finish schedules, with correlation to specifications writing. Prerequisite: ARC 3484.

ARC 4590 Structural Design (4). Elements of structural design in steel, reinforced concrete, and timber, with design specifications per AISC, ACI and NDS. Introduction to prestressed concrete design. Loadings and structural elements commonly encountered in construction will be used for analysis and design. Prerequisite: BCN 3402 or equivalent.

ARC 5176C Computer Practices in Design II (3). Advanced study in concepts, issues and methods in computer-aided architectural design. Application of ARC 5175. Prerequisite: ARC 5175 or equivalent.

ARC 5336 Basic Utilities and Housing (3). The study of the importance of basic utilities (such as roads, sewer and water supply systems) in housing planning and construction. A relative cost analysis. Health problems and sociological effects of lack of basic utilities. Innovative concepts to incorporate basic utilities to all housing projects in developing countries. Prerequisite: Permission of instructor.

ARC 5916 Innovations in Building Technology (3). Experimental approach to new materials and methods applicable to the field of construction. Prerequisite: Permission of instructor.

BCN 1252 Building Construction Drawing I (4). The laboratory application of Methods and Materials of Construction I. Students prepare plans, elevations, sections, and details appropriate to light construction. Corequisite: ARC 1461

BCN 2256 Building Construction Drawing II (4). The laboratory application of Methods and Materials of Construction II. Students prepare plans, elevations, sections, and details appropriate to general construction. Prerequisites: ARC 1461 and BCN 1252. Corequisite: ARC 2462.

BCN 3210 Construction Materials (3). Lecture/Lab-A study of the origins, production, and uses of construction materials, such as concrete, steel, aluminum, wood, plastics, brick, and stone. Includes testing lab, which consists of testing and evaluating properties of construction materials. Prerequisite: Physics.

BCN 3240 Construction Methods and Equipment (3). Methods, procedures, and equipment used in residential, commercial, and heavy construction. Equipping the construction plant. Production value analysis. Work effectiveness studies. Prerequisite: Algebra.

BCN 3257 Exterior Design (3). Exploration and analysis of the relationship of exterior and interior environment. Emphasis on three dimensional design projects using basic model making and presentations.

BCN 3281 Construction Surveying (3). Principles and practices of surveying as it applies to building construction. Prerequisite: Trigonometry or equivalent.

BCN 3402 Mechanics of Materials (4). Applications of the principles of mechanics to engineering problems of equilibrium, strength, and stiffness. Topics include equilibrium of forces, stress, strain, torsion, beams, and columns. Prerequisite: Algebra, Trigonometry or equivalent.

BCN 3611 Construction Cost Estimating (3). Principles and practices of estimating providing application and drill in surveying quantities of labor and materials for general construction projects: excavation, concrete and formwork, carpentry, masonry, structural steel, lath and plaster, interior finishes. Prerequisite: ARC 3466 or equivalent.

BCN 3640 Economic Planning for Construction (3). Nature of construction costs, funding sources and arrangements, capital requirements, bonding, insurance, risk and contingency evaluation, general office operations, and bidding procedures. Prerequisites: Physics and BCN 3703, or equivalent.

BCN 3703 Management of Construction Projects (3). Organization and management theory elements of leadership and human supervision, organization, office operations, labor relations, safety, and work improvement, as they relate to project field operations. Prerequisites: BCN 3720 and BCN 3762, or equivalent.

BCN 3720 Construction Costs and Scheduling (3). The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduled vs actual job expenditures. Cost forecasting. Development of unit prices from field data. Laboratory is included, which consists of computer applications. Prerequisite: BCN 3611 or equivalent.

BCN 3740 Legal Aspects of Construction and Labor Law (3). Legal and business aspects of engineering contracts and specifications in the construction industry. Analysis, study of precedents, and application of contract clauses, including changes, changed conditions, termination, disputes, payments, risk and insurance, inspection, liquidated damages, and technical requirements. Prerequisite: BCN 3762.

BCN 3761 Specifications Writing (4). Study of methodology for acquisition of information and transmission of technical and legal requirements for construction projects. Preparation of outline specifications, building description, and purchasing specifications. Problems of format, reviewing, and updating. Prerequisites: ARC 3466 or BCN 3210 and BCN 3740 or consent of instructor.

BCN 3762 Codes and Specifications (3). A study of codes required by local, county, and state levels. The writing and reading of specifications: bidding procedures; the relationships between contractors, engineers-architects , owners, subcontractors, and material suppliers. Prerequisite: ARC 3466 or equivalent.

BCN 4221 Road Construction (3). A study of highway planning, pre-construction investigations, such as surveys, soil test data and drainings, types of construction equipment and materials. Familiarization with standard methods required for various governmental agencies. Prerequisite: BCN 3210.

BCN 4254 Building Construction Drawing I (3). An introductory course in basic drafting and reading drawings. Use of instruments, orthographic projection, lettering, sectional and auxiliary projections, and applied engineering geometry are studied. Various technical symbols are studied to facilitate reading of structural, architectural, and mechanical drawings. Prerequisite: Permission of instructor.

BCN 4260 Quality Control in Construction (3). Quality control as governed by the job inspector, contractor superintendent, architect-engineer, building official, and governmental agencies and requirements. Prerequisite: BCN 3762 or equivalent.

BCN 4431 Steel Design (3). The analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Both elastic and plastic designs are considered.

BCN 4475 Structural Systems (3). A general study of the methods of structural systems, such as beams, columns, rigid frames, arches, trusses, floors, enclosure systems, and various foundation configurations. The limitations of using various structural materials for the systems will be discussed. Prerequisite: BCN 3402 or equivalent.

BCN 4561 Environmental Control in Buildings (4). A study of concepts and systems for providing optimum thermal, lighting, plumbing, and acoustical conditions, in both commercial and residential buildings. Prerequisite: ARC 3466 or equivalent.

BCN 4612 Advanced Estimating (3). Quantity Take-offs and pricing, marketing policies and the application of microcomputers in construction estimating. Prerequisites: BCN 3611 and BCN 3720.

BCN 4707 Housing and Environment (3). The impact of housing and construction on a community and environment. The necessity of total planning to protect the environment. Public participation in housing planning. Economics vs. ecology.

BCN 4905 Directed Independent Studies (VAR). Specialized intensive study in an area of special interest to the student. Prerequisite: Permission of instructor.

BCN 4906 Special Topics (3). For a group of students who wish an intensive study of a topic not otherwise offered in the University. Prerequisite: Permission of instructor.

BCN 5022 Housing for Developing Countries (3). Problems faced by developing countries in housing their population. Political, economic, social, and technical considerations in decision process. Prerequisite: ARC 3586 or BCN 5706.

BCN 5716 Superintendence of Construction (3). Design, fabrication, and erection or installation of building components and assemblies for concrete and steel construction projects. Prerequisites: ARC 2462, BCN 2256, ARC 4590.

BCN 5755 Construction Accounting and Finance (3). Money management in construction operations: financing, funding, sources of money, cash flow, disbursement, liability and bonding, cost and managerial accounting, and profit analysis. Prerequisites: ACG 3021 and graduate standing.

BCN 5771 Management and Marketing of Construction Services (3). Human effectiveness in marketing construction management services in the public and private sectors. Prerequisites: BCN 3703 and ARC 4270.

BCN 5784 Construction Information Services (3). The application of information management techniques, including computer hardware and software systems, to the analysis and solution of typical problems on the practice of construction management. Prerequisites: BCN 4611 and graduate standing.

BCN 5905 Directed Independent Studies (VAR). Individual studies under supervision of faculty, tutor, or advisor. Permission of tutor and faculty chairperson required.

BCN 5906 Special Topics (VAR). Intensive study for small group of students in a particular topic, or a limited number of topics not otherwise offered in the curriculum. Permission of supervisor and department chairperson.

BCN 6473 Systems Approach for Housing Planning (3). Discussions of basic concepts of systems analysis and systems approach to the field of housing planning. The advantage of systems approach. Case studies. Prerequisite: ARC 3586 or equivalent.

BCN 6642 Value Engineering in Construction (3). Relationship of costs to time and life cycle of construction projects, and methods to improve the economic value of construction projects. Prerequisite: Graduate standing.

BCN 6785 Computer Estimating and Cost Analysis (3). Application of computer software to rigorous exercises in construction estimating. Cost information related to construction with applications in current practice. Prerequisite: BCN 5625.

BCN 6935 Seminar on Construction Management (3). Advanced study of problems, trends, and issues in a time of rapid change in building and management technology. Topics selected or developed by class. Prerequisite: Graduate standing.

BCN 6971 Thesis (3-6). Students develop a thesis under the direction of a senior faculty mentor and advance and defend their propositions before an audience of peers and scholars. Prerequisite: Advanced graduate standing.

IND 3100 History of Interiors I (3). An analysis of the history of architectural interiors, furniture and decorative arts from ancient times through the Neo-Classical Period. Prerequisite: ARC 3786.

IND 3130 History of Interiors II (3). An analysis of the history of architectural interiors, furniture and decorative arts from the Neo-Classical Period the present. Prerequisite: IND 3100.

IND 3210 Advanced Interior Design I (4). Consideration and application of design criteria including floor, wall and ceiling materials and treatments, furniture selection and arrangement, illumination, ventilation, and selected architectural details. Prerequisite: Junior standing. Corequisite IND 4311.

IND 3422C Sources, Materials and Cost Estimating for Interiors (3). Sources and materials used by interior designers in the development of a design project. Materials available in the market for furniture finishes and equipment and its costs are analyzed. Prerequisite: IND 3210.

IND 3423C Sources, Materials, and Cost Estimating for Interiors (3). Sources and materials used by interior designers in the development of a design project. Materials available in the market for furniture finishes and equipment and its costs are analyzed. Prerequisite: IND 3210.

IND 3450C Interior Design Construction Drawing (4). Working drawings for interior designers including interior spaces and cabinet work detailing. Prerequisites: BCN 1252, ARC 1451, ARC 2462.

IND 3451C Interior Design Construction Drawing (4). Working drawings for interior designers including interior spaces and cabinet work detailing. Prerequisites: BCN 1252, ARC 1451, and ARC 2462.

IND 4220 Advanced Interior Design II (4). Analysis, synthesis, articulation, and design execution of commercial spaces, integrating human factors, environmental-technological systems, activity structure, and symbiotic relationships as space design determinates. Prerequisites: IND 3210, IND 4311.

IND 4221 Institutional Interiors (4). Analysis and synthesis of institutional functions, administrative controls, resources, constraints and policies in planning economic, behavioral, and environmental parameters. Prerequisite: Junior standing.

IND 4311 Media and Methods of Presentations (3). Applications of media and materials used in presentation of design concepts and programs to clients, groups, and organizations. Emphasis on various equipment and graphic techniques available, their application and use in simple and detailed communications. Corequisite: IND 3210.

IND 4430 Lighting Design (3). A fundamental course in lighting with emphasis on interaction with the design of an interior space. Prerequisites: BCN 4561 and IND 3210.

IND 4441C Furniture Design (3). Introduction to the human factors, concepts, function, materials and techniques of furniture design.

IND 4501 Interior Design Practice (3). The student will be introduced to the specific skills necessary to succeed in the practice of interior design such as business and client relations, office management, preparation of legal documents, marketing and billings. Prerequisites: BCN 3611 and IND 3210.

IND 4510 Interior Design Practice (3). The student is introduced to the specific skills necessary to succeed in the practice of interior design such as business and client relations, office management, preparation of legal documents, marketing and billings. Prerequisites: BCN 3611 and IND 3210

IND 4905 Independent Study (Thesis) (VAR). Simulated conditions of an interior design commission assuming all responsibilities of a professional interior designer, providing all required services including: cost estimate, contract, conceptual design drawings, selection of furniture and accessories, lighting systems, and treatment of walls, floors and ceilings. Prerequisite: Completion of Interior Design curriculum.

LAA 3350 Landscape Design I (4). Application of Basic Design principles to the design of landscape and garden. A general survey of design elements, restraints, plant materials, and other garden materials will aid the student to develop projects in a laboratory environment. Prerequisite: ARC 3127

LAA 3712 History of Landscape (3). A survey of landscape history throughout the ages. From the gardens of Mesopotamia, Roman and Islamic periods, the Monastery and Castle gardens of middle ages and the Renaissance, to the influence of Oriental gardens and the modern era. Prerequisite: Permission of instructor.

LAA 5212 Office Practice (3). Overview of office organization, management of projects, cost analysis, organization and preparation of construction documents, review of legal papers and forms, alternative patterns of management, emerging landscape practices.

LAA 5335 Site Improvement (3). This course deals with the computer applications and to computer utilization in Landscape Architecture. Explore both the potentials and limitations of computer usage in the profession. Prerequisites: CGS 3061 or equivalent and department approval.

LAA 5371 Computer Practices in Design I (3). Introduction to processes of site construction and design. Specifically, microclimate design principles, grading and earthwork calculations, hydrology and drainage, soil characteristics, construction materials and road alignment. Prerequisite: LAA 5652.

LAA 5425 Advanced Landscape Construction (3). This course will cover planting, irrigation, cost estimating, specifications, and construction documents. Emphasis will be on production drawings/fieldwork, planting plans, layouts, detailing, and inspections. Prerequisite: LAA 5335.

LAA 5521 Natural Landscape Systems (3). Environmental planning and landscape design issues will be related to an overview of basic ecosystems, plant materials and earth science concepts.

LAA 5652 Interdisciplinary Design Studio I (6). Introduction to two- and three-dimensional representational techniques. Fundamental geometric constructions, spatial theory, three-dimensional perception and color theory. Programmed designs are executed. Prerequisite: Departmental approval.

LAA 5653 Landscape Architectural Design I (6). Introduction to the design process and sources of form in landscape architecture. Projects focus on spatial composition and the use of landscape materials in the solution of design problems. Prerequisite: LAA 5652.

LAA 5715 Architectural History and Theory (3). An overview of architectural history, from the beginnings of western architecture and urban design to the 20th century, including current trends.

LAA 5716 History of Landscape Architecture (3). Focus will be on the development of landscape architecture as a profession, and an art form, from the Renaissance to the 20th century. Theoretical concepts and ideologies will be discussed in relationship to built works.

LAA 6215 Advanced Landscape Architectural Practice (3). Topics to be covered include economic viability, organizational structure, intra-office relationships, management systems, task definition, and computer applications. Prerequisites: LAA 5212 and LAA 5371.

LAA 6222 Landscape Architecture Communication (3). This course develops methods and techniques for the effective communication of landscape planning and design values to the consumer. Prerequisite: Departmental approval.

LAA 6322 Economics of Landscape Architecture (3). This course investigates demand/market estimations, project development and project management for a broad array of major landscape architectural work.

LAA 6342 Landscape Aesthetics (3). This course explores values of natural, rural, industrial and urban landscapes. Emphasis is on aesthetic perception and the relationship to the design process.

LAA 6382 Methods of Environmental Analysis (3). Primarily through case studies, this course will explore the methods available to the landscape architect for analyzing land resource data and applying the results to land management and environmental design. Prerequisites: LAA 5175 and LAA 5521.

LAA 6541 Tropical/Subtropical Landscape (3). In-depth study of tropical and subtropical landscapes. Topics to be covered include natural resource, unique climatic conditions, plant materials, natural processes, and the interaction of man with the environment. Prerequisite: LAA 5521. Corequisite: LAA 6541L.

LAA 6541L Tropical/Subtropical Landscape Fieldwork Lab (2). Fieldwork component of tropical/subtropical landscape. The recognition, character analysis, growth requirements and the use of tropical and subtropical plant materials will be stressed.

LAA 6654 Landscape Architectural Design 2 (6). This course will focus upon housing issues as they relate to design. Project scale varies from single family homes to high density multi-family housing development of residential environments in urban and rural settings. Prerequisite: LAA 5653.

LAA 6655 Landscape Architectural Design 3 (6). This course will explore a range of land and site design problems at the planning and project scales. Emphasis will be on resolution of complex problems through analysis of natural, physical, and social factors. Prerequisites: LAA 6654 and LAA 6382.

LAA 6835 Interdisciplinary Design Studio 2 (6). Work on selected projects with graduate students in architecture, urban and regional planning and/or building construction. Landscape architecture faculty involvement. Prerequisite: LAA 6655.

LAA 6905 Independent Study (1-3). Individual studies under supervision of faculty, tutor, or advisor. Consent of tutor and faculty chairperson required. Prerequisite: Departmental approval.

LAA 6915 Supervised Research (1-5). Each student must engage in supervised work under a principal investigator on either a proposal for funding (RPR or in solicited) or a funded project. Assigned duties must be agreed to by student and P.I. prior to beginning the supervised work. Prerequisite: Department approval.

LAA 6935 Graduate Seminars (1-3). Topical seminar designed especially for direction by visiting professionals or visiting faculty from other disciplines. It may be developed in cooperation with a private or public sector office, industry, or environmental association. The seminar normally accommodates one design opportunity per offering. Prerequisite: Departmental approval.

LAA 6936 Special Topics (1-3). Lecture lab course to address current special topics of interest. Prerequisite: Departmental approval.

LAA 6971 Terminal Project/Thesis (6). A terminal project may be approved in lieu of a thesis where the research format does not fit the conventional thesis format where an interdisciplinary terminal project has been approved by the student's advisor. Prerequisite: LAA 6655.

School of Engineering

Manuel R. Cereijo, *Associate Dean*
James R. Story, *Acting Associate Dean*

The School offers baccalaureate degree programs in Electrical Engineering, Civil/Environmental Engineering, Industrial Engineering, and Mechanical Engineering. Graduate degree programs are offered in Civil Engineering, Electrical Engineering, and Environmental Engineering, and mechanical engineering. The various curricula for the School are designed to give the student an education for entry into the profession of engineering.

Accreditation

The Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) accredits college engineering programs on a nationwide base. Accreditation is important in many areas of the engineering profession. Students wishing more information about accreditation should consult their departmental office or the Office of the Dean.

Area of Research

At present, faculty members and students are actively engaged in research in the following areas: biomedical, computers, electromagnetism, solid state, microelectronics, computer integrated manufacturing, artificial intelligence, material handling, robotics, laser, computer aided design and manufacturing, energy systems, biomaterials, diagnostic imagery, fracture mechanics, geotechnical, geohydrology, water treatment, solid waste, pollution, and general environmental research.

Community Involvement

The School of Engineering maintains close ties with private and public sectors in South Florida. The economic development of the region is among the main objectives of the School's academic programs.

The School's faculty maintains close contact with colleagues in industry as well as with members of the professional organizations, and serve also in different functions in such organizations.

Plan of Study

The subjects basic to all fields of engineering are generally studied while the student is in the first two years of undergraduate study in a pre-engineering curriculum. Specialized or departmental courses are taken in the third and fourth years with additional interspersed mathematics and humanistic-social studies. To earn a bachelor's degree in engineering, a student must complete the approved curriculum requirements, and must have a cumulative GPA of at least 2.0 on all engineering courses taken at the University.

The engineering programs include a strong engineering core foundation designed to prepare the prospective engineer not only with a broad base of fundamental courses in mathematics, sciences, and technical knowledge, but also with a solid cultural background in humanities, social sciences, and English. In addition to the core subjects, the student must complete an engineering discipline specialization under the direction of the respective administrative department.

Admission Preparation

Prospective students who are considering engineering should follow an academic program to meet engineering prerequisites. The student planning to transfer to the engineering program as a junior should follow a pre-engineering program in the first two years of college work. Many courses required by the engineering curriculum are specialized in their content and students need to select lower division courses with care. The normal maximum number of credits transferred from a community college is sixty semester credits.

Freshmen admission to the University is determined by the admission standards of the lower division. The admitted freshmen should discuss their future program intentions with their lower division academic advisor and plan their lower level course selections toward their engineering program goals. The freshmen should have had high school preparatory work of high intellectual quality and of considerable breadth. Specifically, students admitted to the lower division with a degree in engineering as their goal should have the minimum preparatory studies in mathematics (algebra, geometry, trigonometry, analytical geometry, or pre-calculus) and chemistry. Physics and introduction to computers are recommended, but not required. Admitted freshmen students planning to major in an engineering program should contact an engineering advisor as early as possible, preferably before earning 30 semester credit hours.

Admission Policy

The admission policy for the School of Engineering is as follows:

1. Any student seeking admission to an undergraduate degree program in the School will be admitted directly by the Admissions Office if the following criteria are met:

a. The University Admission requirements are met;

b. A grade of 'C' or higher is earned in the following courses: Calculus I, Calculus II, Physics I with Calculus, Chemistry I

c. The highest grade earned is to be counted for a repeated course, but only two repeats of a course will be considered.

2. Students seeking admission to any engineering program but who do not meet the criteria in 1(b) or 1(c), but who meet criteria 1(a) will be admitted to Engineering, Other, and their folders will be submitted to the Department to which they are seeking admission.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Students must have met the prerequisites and corequisites to register for any course. Otherwise, the student will be dropped from the course before the end of the term, resulting in a grade of DR or DF. Students should refer to the Catalog or see an advisor to determine course prerequisites.

General Requirements for a Baccalaureate Degree in the Engineering Programs

1. Obtain the minimum number of credit hours required by the specific program. Some majors require more than the minimum number of credits. Specific requirements beyond the minimum requirements are described in the sections devoted to the various departments in the College.

2. Complete at least 35 credit hours in the College of Engineering and Applied Sciences.

3. Attain a minimum GPA of 2.0 in all engineering courses taken at the University.

4. Satisfy the University's general education requirements.

5. Satisfy particular requirements for the major and University requirements for graduation.

Civil and Environmental Engineering

Luis A. Prieto-Portar, *Associate Professor and Chairperson*
Robert J. Fennema, *Assistant Professor*
Jeffrey H. Greenfield, *Assistant Professor*
Roberto M. Narbaitz, *Assistant Professor*
Nelson L. Nemerow, *Professor*
L. David Shen, *Assistant Professor*
Vasant H. Surti, *Professor*
Lambert Tall, *Professor*
LeRoy E. Thompson, *Professor*
Oktay Ural, *Professor*
Jose T. Villate, *Professor*
Ton-Lo Wang, *Assistant Professor*

Degree: **Bachelor of Science**
J. T. Villate, *Undergraduate Advisor*

The Civil Engineering curriculum provides a background of interrelated subdisciplines of Civil Engineering with the fundamental core subjects of the engineering program. The technical interdisciplinary courses are in the areas of construction, geotechnical, environmental, structures, surveying, transportation, urban planning, and water resources. Civil engineers play an essential role in serving people and the living environmental needs of society. These needs relate to shelter, mobility, water, air, and development of land and physical facilities.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. All other applicants must meet regular University transfer admission requirements.

The basic upper division requirements for the BSCE degree are as follows:

Engineering Sciences (24 semester hours)

EGN 1120	Engineering Design and Graphics I
EGN 2311	Statics
EGN 2321	Dynamics
EGN 3343	Thermodynamics I
EGN 3353	Fluid Mechanics
EGN 3353L	Fluid Mechanics Laboratory
EGM 3520	Engineering Mechanics of Materials
EGM 3520L	Materials Testing Laboratory
EEL 3003	Electrical Engineering I
ESI 3161	Industrial Applications of Microprocessors

Civil and Environmental Engineering Curriculum (48 semester hours)

CES 3151	Determinate Structural Analysis	3
CES 4152	Indeterminate Structural Analysis	3
CES 4605	Steel Design	3
CES 4704	Reinforced Concrete Design	3
ECI 3403	Civil Engineering Materials	3
ECI 4305	Geotechnical Engineering I	3
ECI 4305L	Soil Testing Lab	1
ENV 3621	Water Resources Engineering	3
ENV 3001	Introduction to Environmental Engineering	3
ENV 3001L	Environmental Laboratory	1
SUR 3101	Surveying	3
TTE 4201	Transportation and Traffic Engineering	4

Five technical elective courses in civil engineering.

Environmental Engineering Option

This option is available to civil engineering students who wish to concentrate in solving environmental problems.

The technical electives may be substituted for the following courses

ENV 4104	Elements of Atmospheric Pollution
ENV 4351	Solid Waste Management
ENV 4404	Water Supply Engineering
ENV 4404L	Water Supply Laboratory
ENV 4514	Sewerage and Waste Water Treatment
ENV 4514	Wastewater Laboratory

Graduate Programs

Vasant H. Surti, *Graduate Studies Coordinator*

The Department of Civil and Environmental Engineering offers advanced study for the degree of Master of Science. The areas of specialty are Structures, Mechanics, Geotechnical, Construction, Transportation, Water Resources, and Environmental Engineering. The degree will be a Master of Science in Civil Engineering or a Master of Science in Environmental Engineering depending upon the area of selected graduate study.

Master of Science in Civil Engineering

The Master of Science program in Civil Engineering emphasizes course work as well as research. The student is generally encouraged to specialize in a defined area of civil engineering, but also find it desirable to pursue a more general program of studies combining subject material from different areas of specialization and interdisciplinary related courses. The graduate degree is offered to prepare qualified students for the professional practice of civil engineering. The degree is available in a thesis or non-thesis program. The thesis program entails a minimum of six credits for the successful completion of the research and thesis. The non-thesis program must be supported by the successful completion of a project and a report of substantial engineering content for a minimum of three credits. A student must satisfactorily complete a minimum of thirty-six semester credits of acceptable graduate coursework which includes a minimum of twelve credits of graduate courses in the specialty area.

Master of Science in Environmental Engineering

A Master of Science in Environmental Engineering is available to persons interested in graduate work in Environmental Engineering. The program is designed to give graduate students a broad base of knowledge on environmental engineering and on problem solving while permitting them to pursue individual interests. Thus, the curriculum has a common core of courses but is flexible enough to permit an interdisciplinary approach, if so desired, and allows the student to pursue his or her career goals. A proposed program of studies will be developed at the time of admission or no later than at the end of the student's first semester. The applicant should hold a Bachelor's degree in engineering, the natural sciences, or a related field. Students who do not meet the stated criteria as developed by the faculty may be considered for admission if they complete the required prerequisites and satisfy any deficiencies.

Master of Science in Environmental and Urban Systems

This program prepares the student to practice urban and regional planning, as a discipline to address social, physical, and economic problems of neighborhoods, cities, suburbs, metropolitan areas, and larger regions. The student must identify problems and opportunities, devise alternative policies or plans and effect their implications.

Admission Policies

A student seeking admission into the graduate program must have a bachelor's degree or equivalent from an accredited institution or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level. All graduate applicants, regardless of previous grade point average or degrees, are required to submit their GRE (general) scores. An applicant must present:

1. A 'B' average in upper level undergraduate work, and a 3.0 GPA,
2. A combined score of 1000 on the Graduate Record Examination (GRE).

Note: Applicants who have either a 3.0 average or a score of 1000 on the GRE, will be evaluated by the School's Graduate Evaluation Committee for possible admission.

Grades earned at an institution with non-traditional grading systems will be given every consideration and applicants will be treated equally with students from institutions with traditional grading systems. Foreign students are admitted as governed by University Admission rules and Board of Regents Rule 6C-6.09.:

1. Eligible foreign students may be accepted at the appropriate level subject to space and fiscal limitations.
2. In addition to University admission requirements, foreign students must meet the following requirements as a minimum:
   a. The applicant shall be academically eligible for further study in his or her own country.
   b. The applicant whose native language is other than English shall demonstrate proficiency in the English language by presenting a score of 550 or higher on the Test of English as a Foreign Language (TOEFL).

Application Procedures

A student planning to enroll in the graduate program must complete the following:

1. Submit a Graduate Application for Admission to the Admissions Office. Application forms will be mailed upon request.
2. Have a copy of the official transcripts of all previously earned college or university credits sent from the applicant's former institution(s) to the Admission Office.
3. Submit scores on the Graduate Record Examination (GRE).
4. Foreign students must submit TOEFL scores.
5. It should be emphasized that the admission cannot be acted upon until all of the documents and credentials have been received.

Degree Requirements

To be eligible for a Master's degree a student must:

1. Satisfy all University requirements for a Master's degree.
2. Meet all undergraduate deficiencies, the requirements of the core or the requirements of an approved program of study, or both. This program of study is developed by the student and his or her advisor and must be approved by the Supervisory Committee and by the Coordinator of the Program.
3. Complete a minimum of 36 semester hours of acceptable graduate level courses.
4. Environmental Engineering students must have completed at least one credit of a Graduate Seminar course.
5. Earn a minimum average of 3.0 in all approved courses in the student's program of study.
6. Complete an acceptable thesis or an engineering project.
7. Pass an oral examination that includes an oral defense of the thesis or project.
8. Master's degree students in Environmental Engineering must, in addition,
   a. take ENV 6615 Environmental Impact Assessment;
   b. select, with advisor approval, at least two courses from the following:
   EES 5506 Occupational Health
   ENV 5006 Noise Control Engineering
   ENV 5126 Air Quality Management
   ENV 5356 Solid Wastes
   ENV 5666 Water Quality Management
   c. take a mathematics course as determined by the advisor for the thesis or project.

Grades and Credits

No course in which a grade below a 'C' is earned may be counted toward the Master of Science in Civil Engineering or in Environmental Engineering.

Transfer Credit

The student may receive permission to transfer up to a maximum of six semester hours of graduate credit provided that: (1) the course(s) were taken at the graduate level at an accredited college or university; (2) grade(s) of 'B' or higher were earned; (3) the course(s) are judged by the faculty advisor, Supervisory Committee, Coordinator of the Program, and Dean to be relevant to the student's graduate program; (4) the credits were not used toward another degree; and (5) the credits(s) were completed within seven years immediately preceding the awarding of the degree.

Credit is not transferable until the student has earned 12 semester hours in the Civil Engineering or Environmental Engineering programs.

Time Limit

All work applicable to the Master's degree, including transfer credit, must be completed within seven years immediately preceding the awarding of the degree.

Course Descriptions

Definition of Prefixes

CES—Civil Engineering Structures; ECI—Engineering, Civil; EGM—Engineering, Mechanics; EGN—Engineering, General; ENV—Engineering, Environmental; SUR—Surveying and Related Areas; TTE—Transportation and Traffic Engineering

CES 3151 Determinate Structural Analysis (3). To introduce the student to the basic concepts and principles of structural theory relating to statically determinate beams, arches, trusses and rigid frames, including deflection techniques. Prerequisite: EGM 3520

CES 3949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.

CES 4152 Indeterminate Structural Analysis (3). To introduce the student to the basic concepts and principles of structural theory relating to statically indeterminate beams, trusses and rigid frames; including Slope Deflection, Moment Distribution, and Matrix Methods. Prerequisite: CES 3151.

CES 4605 Steel Design (3). The analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Both elastic and plastic designs are considered. Prerequisite: CES 3151.

CES 4704 Reinforced Concrete Design (3). The analysis and design of reinforced concrete beams, columns, slabs, retaining walls and footings; with emphasis corresponding to present ACI Building Code. Introduction to prestressed concrete is given. Prerequisite or Corequisite: CES 4152.

CES 4949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and report required. Prerequisite: ECI 3403. Corequisite: CES 4152.

CES 5005 Computer Applications In Structures (3). Discussion and application of available computer programs, techniques and equipment for the analysis, design and drafting of structures. Prerequisites: CES 4605 and CES 4704.

CES 5106 Advanced Structural Analysis (3). Extension of the fundamental topics of structural analysis with emphasis on energy methods and methods best suited for non-prismatic members. Prerequisite: CES 4152.

CES 5606 Advanced Structural Steel Design (3). Extension of the analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Prerequisites: CES 4152, CES 4605.

CES 5716 Prestressed Concrete Design (3). The behavior of steel and concrete under sustained load. Analysis and design of pre-tensioned and post-tensioned reinforced concrete members, and designing these members into the integral structure. Prerequisite: CES 4704.

CES 5801 Timber Design (3). The analysis and design of modern wood structures. Effect of plant origin and physical structure of wood on its mechanical strength; fasteners and their significance in design.

CES 5905 Directed Independent Study (1-3). Individual conferences, assigned readings, and reports independent investigations selected by the student and professor with approval of advisor.

ECI 3403 Civil Engineering Materials (3). A study of the principal materials used for engineering purposes with special attention to their mechanical properties, the importance of these properties, and the appropriate tests to assure the quality of these materials. Prerequisite: EGM 3520.

ECI 4171 Heavy Construction (3). Contractor's organization, contracts, services, safety, planning and scheduling. Equipment and their economics. Special project applications, cofferdams, dewatering, river diversions, tunnelling.

ECI 4305 Geotechnical Engineering I (3). Engineering geology, soil properties; stresses in soils and failures; consolidation and settlement; compaction, soil improvement and slope stabilization. Prerequisite: EGM 3520.

ECI 4305L Soil Testing Laboratory (1). Laboratory experiments to identify and test behavior of soils and rocks. Prerequisite: EGN 3520. Corequisite: ECI 4305.

ECI 4312C Geotechnical Engineering II (4). Principles of foundation analysis and design: site improvement for bearing and settlement, spread footings, mat foundations, retaining walls/earth, cofferdams, piles, shafts, caissons, tunnels, and vibration control. Computer applications. Prerequisite: CES 4704.

ECI 4930 Special Topics In Civil Engineering (1- 4). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

ECI 5235 Open Channel Hydraulics (3). Theoretical treatment and application of hydraulics. Flow in open channels with special reference to varied flow, critical state hydraulic jump, and wave formation. Prerequisites: EGN 3353 and ENV 3621.

ECI 5346C Geotechnical Dynamics (4). Analytical, field, and laboratory techniques related to vibration problems of foundations, wave propagations, behavior of soils and rocks, earth dams, shallow and deep foundations. Earthquake engineering. Prerequisite: ECI 4312.

ECI 5930 Advanced Special Topics In Civil Engineering (1-3). A course designed to give groups of students an opportunity to pursue special studies in an advanced topic of Civil Engineering not otherwise offered. Prerequisite: Permission of instructor.

ECI 5935 Professional Engineering (Civil) Review (3). Prepares qualified candidates to take the P.E. written examination in the filed of Civil Engineering. Reviews hydraulics, hydrology, water supply and wastewater, geotechnics, structures, concrete and steel design, etc.

ECI 6317 Theoretical Geotechnical Mechanics (3). A continuum mechanics interpretation of geotechnical engineering: soil rheology: theories of yielding: failure and plastic stability. Analytical and numerical modeling of non-linear properties. Prerequisites: ECI 5324 and MAP 3302. Suggested corequisite: MAP 4401.

ECI 6326 Advanced Foundations Engineering (3). Computer applications involving the numerical analysis and design of complex soil-structure interactions: highway and airfield pavements, deep foundation groups and NATM tunnelling techniques. Prerequisite: ECI 4312.

ECI 6616 Advanced Groundwater Hydraulics (3). Groundwater flow through porous medium. Velocity holograph, conformal mapping, Schwartz-Christoffel transformation, numerical methods. Prerequisite: ECI 6617.

ECI 6617 Groundwater Hydrology (3). Groundwater occurrence, movement, hydraulics, and application to groundwater flow, including saltwater intrusion, groundwater recharge and drainage, seepage through earth dams. Prerequisite: ENV 3621.

ECI 6637 Statistical Hydrology (3). Quantitative determination of surface water runoff from a statistical approach. Prerequisite: ENV 3621.

ECI 6916 Engineering Project (1-3). Independent research work culminating in a professional practice oriented report for the requirements of the non-thesis option of the M.S. degree. Prerequisites: Fifteen graduate credits and approved project plan.

ECI 6939 Graduate Seminar (1-3). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities, readings, and active discussions among participants. Prerequisite: Permission of graduate's advisor.

ECI 6971 Thesis (1-6). The student following the thesis option of the Master's degree will pursue research through this course. The research work will culminate with an acceptable thesis. Prerequisite: Permission of graduate's thesis advisor.

EES 5506 Occupational Health (3). Effects, assessment, and control of physical and chemical factors in man's working environment, including chemical agents, electromagnetic radiation, temperature, humidity, pressures, illumination, noise, and vibration. Prerequisite: Admission to graduate program.

EES 5601C Noise Control Engineering (3). Fundamentals of sound and noise. Health hazards and other effects. Measurement and noise control in transportation, construction, and other environments. Prerequisite: Admission to graduate program.

EES 6505 Environmental and Human Factors (3). . Effects,assessment and control of physical and chemical factors in the natural and man-made environments, including noise, electro-magnetic radiation,air and water pollution, public and occupational health, vector control, communicable diseases. Prerequisite: Admission to graduate program.

EES 6508 Occupational Health and Toxicology (3). A continuation of EES 5506. Investigation of toxic substances in air, water, and food in the industrial environment. Prerequisite: EES 5506.

EGM 5111 Experimental Stress Analysis (3). Course covers the necessary theory and techniques of experimental stress analysis and the primary methods employed: brittle coating, strain gauges, photoelasticity and Moire. Prerequisites: EGN 3520, EGM 5653.

EGM 5351 Finite Element Methods In Mechanics (3). Matrix techniques and variational methods in solid mechanics; single element, assemblage and generalized theory; non-linear analysis; applications in structural and soil mechanics, torsion, heat conduction and hydroelasticity, etc. Prerequisite: EGM 3520.

EGM 5421 Structural Dynamics (3). Fundamentals of free, forced, and transient vibration of singles and multi-degree of freedom structures, including damping of lumped and distributed parameters systems. Prerequisite: MAP 3302. Corequisite: EGM 5533.

EGM 5533 Advanced Mechanics of Materials (3). Extension of the fundamental principles of engineering mechanics to include curved beams, warping, stability, etc. Prerequisites: CES 4152, MAP 3302.

EGM 5653 Theory of Elasticity (3). An advanced course covering the concepts of stress and strain tensors, indicia notation, transformation of stresses, compatibility equations, the stress function and the closed form solution of some important continuum mechanics problems. Prerequisites: EGN 3520, MAP 3302.

EGM 6675 Advanced Plasticity (3). Formulation of the plastic stress-strain relationships; Prandtl-Reuss equations; yield criteria; Plane Plastic Flow and the Plane Slip Line Field Theory; limit analysis and basics of creep. Prerequisite: EGM 3530.

EGM 6736 Theory of Elastic Stability (3). Course will cover the beam-column problem; elastic and inelastic buckling of bars and frames; review of experimental work and design formulas; buckling of rings, curved bars and arches; bending and buckling of thin plates and thin shells. Prerequisites: EGM 3520.

EGM 6796 Theory of Plates and Shells (3). A course covering the concepts of thin plates with small deflections; thin plates with large deflections; thick plates; the Membrane theory of Shells; and the General Theory of Cylindrical Shells. Prerequisites: EGN 3520.

EGN 1120C Engineering Graphics and Design (3). Introduction to elementary design concepts in engineering, principles of drawing, descriptive geometry, pictorials and perspectives and their computer graphics counterpart.

EGN 2030 Ethics and Legal Aspects in Engineering (3). Codes of ethics, professional responsibilities and rights, law and engineering, contracts, torts, evidence.

EGN 2311 Statics (3). Forces on particles, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures. Prerequisites: PHY 3049, MAC 3413.

EGN 3353 Fluid Mechanics (3). A study of the properties of fluids and their behavior at rest and in motion. Continuity, momentum, and energy principles of fluid flow. Prerequisite: EGN 2321. Corequisite: EGN 3353L

EGN 3353L Fluid Mechanics Laboratory (1). Application of fluid mechanics principles in the laboratory. Experiments in surface water, groundwater and pipe flow. Prerequisite: EGN 3353.

EGN 3520 Engineering Mechanics of Materials (4). Analysis of axial, torsional, bending, combined stresses, and strains. Plotting of shear, moment and deflection diagram with calculus applications and interpretations. Prerequisites: MAC 3412 and EGN 2311.

EGN 5990 Fundamentals of Engineering (FE) Review (4). Prepares upper level engineering students to take the Fundamentals of Engineering (FE) State Board examinations. Reviews chemistry, computers, statics, dynamics, electrical circuits, fluid mechanics, mechanic of materials, material science and thermodynamics.

EGN 5455 Numerical Methods in Engineering (3). Study of procedures that permit rapid approximate solutions, within limits of desired accuracy, to complex structural analysis. Prerequisite: CES 4152.

ENV 3001 Introduction to Environmental Engineering (3). Introduction to environmental engineering problems; water and wastewater treatment, air pollution, noise, solid and hazardous wastes. Prerequisite: ENV 3621 or permission of instructor. Corequisite: ENV 3001L.

ENV 3001L Introduction to Environmental Engineering Laboratory (1). A corequisite to ENV 3001. Practical applications of the theory learned in the course and experience in detecting and measuring some environmental problems. Prerequisite: ENV 3621 or permission of instructor. Corequisite: ENV 3001.

ENV 3621 Water Resources Engineering (3). Hydrology, probability, ground and surface water studies. Closed conduit flow and hydraulic machinery. Prerequisites: EGN 3353 and STA 3033.

ENV 3949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor.

ENV 4061 Public Health Engineering (3). Study of the physical, chemical, and biological changes in the environment; and the application of science and engineering to improve environmental quality. Prerequisites: PHY 3049, CHM 1046.

ENV 4104 Elements of Atmospheric Pollution (3). The air pollution problem, causes, sources, and effects. Historical development. Physical, political, and economic factors in its control. Prerequisites: PHY 3049, CHM 1046.

ENV 4351 Solid Waste Management (3). Sources, amounts and characteristics of solid wastes; municipal collection systems; method of disposal; energetic consideration in the recovery and recycle of wastes. Prerequisites: PHY 3049, CHM 1046.

ENV 4404 Water Supply Engineering (3). Quantity, quality, treatment, and distribution of drinking water. Prerequisites: CHM 1046, ENV 3621, and CHM 1046.

ENV 4404L Water Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of potable water. Prerequisites: CHM 1046, ENV 3621. Corequisite: ENV 4404.

ENV 4514 Sewerage and Wastewater Treatment (3). Collection and transportation of wastewater, design of sanitary and storm sewers. Physical, chemical, and biological principles of wastewater treatment. Prerequisite: CHM 1046, ENV 4404, or permission of instructor.

ENV 4514L Wastewater Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of raw and treated wastewaters. Prerequisites: CHM 1046, ENV 3621. Corequisite: ENV 4514.

ENV 4930 Special Topics in Environmental Engineering (1-4). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

ENV 4949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.

ENV 5007 Environmental Planning (3). Ecological principles necessary to preserve a quality environment are presented by means of planning policies, processes, and environmental indicators. Emphasis will be placed on the impact of growth on environmental quality. Prerequisite: Permission of instructor.

ENV 5008 Appropriate Technology for Developing Countries (3). The use of appropriate technology in developing countries. Local traditions and adaptations. Local materials in housing, food production, cottage industries. Cooperatives and training.

ENV 5062 Environmental Health (3). Study of the control and prevention of environmental-related diseases, both communicable and non-communicable, injuries, and other interactions of humans with the environment. Prerequisite: Permission of the instructor.

ENV 5115 Air Pollution Control (3). Air pollution control-devices, principles, efficiencies, costs. Gas scrubbers, electrostatic precipitation, thermal deposition, filters, condensers, after-burners. By-product recovery. Stoichiometry of combustion mixtures and basic industrial plant designs are discussed. Prerequisite: ENV 4104 or ENV 5126.

ENV 5116 Air Sampling Analysis (3). Practical laboratory work and theoretical aspects involved in a wide range of air sampling and analysis systems. Critical comparison and examination of methods and instrumentation. Source testing, instrumental sensitivity, applicability and remote sensing systems. Prerequisite: ENV 5126 or ENV 4104.

ENV 5126 Air Quality Management (3). The air pollution problem, principal types, sources and dispersion of pollutants. Physical, economic, and legal aspects of control of atmospheric pollutants.

ENV 5356 Solid Wastes (3). In-depth study of the solid waste problem. Topics include municipal, industrial, and agricultural generation of wastes; municipal collection systems; methods of disposal, hazardous wastes, and energetic considerations in the recovery and recycle of wastes.

ENV 5517 Water and Wastewater Treatment (3). Wastewater collection systems. Integration of unit operations into the planning and design of treatment plants, including sludge handling and disposal. Prerequisite: Permission of instructor.

ENV 5517L Water and Wastewater Laboratory (2). Laboratory exercises in physical, chemical, and biological processes applicable to water and wastewater treatment. Prerequisite: Graduate standing or permission of instructor. Corequisite: ENV 5517.

ENV 5520 Vector and Pest Control (3). Effects and management of public health vectors and communicable diseases. Prerequisite: ENV 5500 or permission of instructor.

ENV 5659 Regional Planning Engineering (3). Theories of urban and regional growth; collective utility analysis; input-output models in planning; application of linear programming to regional social accounting; economic base analysis. Prerequisite: Computer Programming or permission of instructor.

ENV 5661 Water Quality Indicators (3). Ecological studies of micro and macro organisms which are indicators of water quality. Emphasis of bioassays and early warning systems. Prerequisite: Permission of instructor.

ENV 5662 Biological Monitoring of Freshwater Ecosystems (3). The use of aquatic insects and other invertebrates to monitor changes in the aquatic environment. The ecological aspects of aquatic insects in relation to pollution stress are assessed. Prerequisite: ENV 5661 or permission of instructor.

ENV 5666 Water Quality Management (3). Predicting and evaluating the effect of human activities on streams, lakes, estuaries,and ground waters; and the relation of human activities to water quality and protection of water resources. Prerequisite: Permission of instructor.

ENV 5905 Independent Study (1-3). Individual research studies available to academically qualified students on graduate status.

ENV 5930 Special Topics in Environmental Engineering (1-3). Specific aspects of environmental technology and urban systems not available through formal course study. Open to academically qualified students only.

ENV 6045 Environmental Modeling (3). Evaluation of regional resources, environmental stresses, and considerations in regional systems; systems analysis in environmental management and its relation to decision making; modeling of air and water systems. Prerequisite: Computer programming or permission of the instructor.

ENV 6510 Advanced Unit Operations I (3). Theory and design of physical,chemical,and biological unit operations as applied to the advanced treatment of water and wastewater. Prerequisite: ENV 4514 or equivalent.

ENV 6511 Advanced Unit Operations II (3). A continuation of ENV 6510 including the re-use of treated wastewaters and of sludges. Prerequisite: ENV 6510.

ENV 6511L Advanced Unit Operations II Lab (1). Bench scale experiments for scaling-up and designing the following water and wastewater processes: sedimentation, coagulation, filtration, adsorption, oxidation and gas transfer. Prerequisite: ENV 6510. Corequisite: ENV 6511.

ENV 6516 Advanced Treatment Systems (3). Integration of unit operations into advanced treatment systems for waters and wastewater. Prerequisite: ENV 6511.

ENV 6518 Industrial Wastewater Treatment (3). Characteristics and composition of industrial wastewaters. Sampling techniques and analyses. Water conservation and re-use. Joint industrial-commercial collection and treatment of wastewaters. Prerequisite: ENV 6516.

ENV 6615 Environmental Impact Assessment (3). An examination of alternative techniques useful for analysis and environmental impacts of man's activities. Prerequisite: Permission of instructor.

ENV 6916 Engineering Project (1-2). Individual work culminating in a professional practice-oriented report suitable for the requirements of the M.S. degree-project operation. Only three credits are applicable towards degree. Prerequisite: Completion of 20 graduate credits.

ENV 6935 Graduate Environmental Seminar (1-3). The course consists of oral presentations made by students, guests, and faculty members on current topics and research activities in environmental and urban systems.

ENV 6971 Thesis (1-6). Research for Master's thesis

SUR 3101 Surveying (3). Computations and field procedures associated with the measurement of distances and angles using tape, level, transit, EDMs, and total station. Laboratory is included with field measurements.

SUR 4201 Route Surveying and Design (4). To introduce the student to the current design concepts criteria and techniques in geometric design of highways. The theory, field collection of data, office calculations, the design and drawings required for the geometric design of a highway. Prerequisite: COP 3112.

TTE 4201 Transportation and Traffic Engineering (3). Transportation characteristics; transportation planning, traffic control devices, intersection design, network design, research. Prerequisites: STA 3033 and SUR 4201.

TTE 5015 Applied Statistics in Traffic and Transportation (3). Civil and Environmental Engineering statistics methods as applied to traffic and transportation are covered. Topics include: significance tests, standard distributions, analysis of variance, and regression analysis. Prerequisite: Graduate standing.

TTE 5105 Pavement Design (3). Analysis and design of sub-base, base, and pavement of a roadway. Discussions of flexible pavement and rigid pavement as structural units. Boussinesq's approach. Westergaard's theory. Beams on Elastic Foundations. Prerequisites: ECI 4312 and CES 4704.

TTE 5215 Urban Traffic Characteristics (3). Speed and volume studies, stream characteristics, traffic flow theory, accident characteristics. Prerequisite: TTE 4201.

TTE 5505C Urban Traffic Workshop (3). Selected laboratory problems related to urban traffic. Prerequisite: TTE 4201.

TTE 5506 Urban Mass Transit and Transportation Planning (3). Models of urban growth, population forecasts, trip generation, trip distribution, and trip assignment models, model split, system evaluation, transit marketing. Prerequisite: TTE 4201.

TTE 5606 Transportation Systems Modeling and Analysis (3). Modeling and analysis techniques in transportation. Linear Programming, queueing theory, decision making techniques. Prerequisite: TTE 4201.

TTE 5701 Advanced Geometric Design of Highways (3). Parameters governing the geometric design of highways; curve super-elevation; widening on highway curves; elements of intersection design; design of interchanges; use of AASHO design guidelines. Design project required. Prerequisite: SUR 4201.

Electrical Engineering

James Story, *Associate Professor and Chairperson*
Jean Andrian, *Assistant Professor*
Tadeusz Babij, *Associate Professor*
Manuel Cereijo, *Professor and Associate Dean*
Mark Hagman, *Associate Professor*
Malcom Heimer, *Associate Professor*
Grover Larkins, *Assistant Professor*
Osama Mohammed, *Associate Professor*
Vijay Raman, *Assistant Professor*
Gustavo Roig, *Associate Professor*
Laura Ruiz, *Instructor*
Wunnava Subbarao, *Professor*
Kang Yen, *Assistant Professor*

The Electrical Engineering curriculum provides an emphasis toward engineering concepts and design in the varied and rapidly expanding fields of electrical engineering with the fundamental core subjects of the engineering program. The Department of Electrical Engineering seeks to attract students who possess a verbal and written command of the English language, who exhibit logical thinking, creativity, imagination, and persistence. They should have proved their academic excellence in mathematics, chemistry, and physics. At the undergraduate level, the basic required program of instruction in fundamental theory and laboratory practice is balanced by a broad range of electives in such fields as computers, communication systems, control systems, power systems, and integrated electronics. Students, with the counsel and guidance of faculty advisers, design their electives program around their own special interest.

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. For transfer applicants, at least 60 hours in pre-engineering which includes FORTRAN, Calculus I & II, Physics I & II with Calculus, Chemistry I, Statics, English Composition I & II, a two course sequence in Social Science (Economics), and a two course sequence in Humanities (Ethics), Speech, and a Gordon Rule course.

Upper Division Program

The program includes Dynamics, Engineering Economy, Professional Ethics, Advanced Humanities or Social Science, Differential Equations, Multivariable Calculus, Technical Writing, Thermodynamics or Materials of Engineering, Signals and Systems, three general electives, and the following major courses:

Electrical Engineering Curriculum (Major only): (52 semester hours)

EEL 3111	Circuits I	3
EEL 3111L	Circuits Lab	1
EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3112	Circuits II	3
EEL 3396	Solid State Devices	3
EEL 3514	Communication Systems	3
EEL 3657	Control Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4304	Electronics II	3
EEL 4304L	Electronics II Lab	1
EEL 4213	Power Systems I	3
EEL 4213L	Energy Conversion Lab	1
EEL 4314	Integrated Circuits and Systems	3
EEL 4314L	Integrated Circuits and Systems Lab	1
EEL 4709	Computer Design	3
EEL 4410	Fields and Waves	3
EEL 4611L	Systems Lab	1

Electrical Engineering Electives: Three courses 9

Any course taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of 'DR' or 'DF'.

Master of Science in Electrical Engineering

Graduate Program

The Department of Electrical Engineering offers both thesis and non-thesis options for the Master's Degree. A student seeking the Master's degree with or without thesis is required to pass a comprehensive oral or written examination.

All work counted for the Master's degree must be completed during the five years immediately preceding the date of admission.

The program shall provide a broad education, covering more than one field, followed by in-depth studies of areas of interest. Multidisciplinary programs such as Computer Engineering, Systems Engineering, and Biomedical Engineering shall be permitted.

Admission Requirements

The following is in addition to the University's graduate admission requirements.

1. A student seeking admission into the graduate program must have a Bachelor's degree in Electrical Engineering or equivalent from an accredited institution or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level.
2. An applicant must present a 3.0 GPA in upper level work and a combined score of 1000 on the Graduate Record Examination (GRE).
3. Applicants who have either a 3.0 GPA or a score of 1000 on the GRE will be evaluated by a committee for possible admission.

Graduate Requirements: All matters concerning academic regulations and policies are decided by the Dean of the School. The decisions will be made on the advice and recommendations of the specific Department Chairperson of the unit of the program, and by the Committee on Admission and Academic Performance.

The degree will be conferred when the following conditions have been met:

1. Recommendation of the advisor and faculty of the School which is awarding the degree,
2. Certification by the Dean of the School that all requirements of the degree being sought have been completed.
3. A GPA of at least 3.0 has been earned for certain courses required by the program.
4. Met the undergraduate deficiencies, if any existed in the student's graduate program, as additional courses toward the degree.
5. Completed a minimum of 36 semester hours of graduate level courses (not more than nine graduate semester hours with a grade of 'B' or higher can be transferred from other accredited institutions).
6. Completed an acceptable graduate thesis if required of the selected program.
7. Students must maintain an overall GPA of 3.0. No grade below 'C' will be accepted in a graduate program. In the event that a student is placed on a probationary status, he or she must obtain a directed program from his or her advisor and approved by the Dean prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time limit, otherwise he or she will be academically dismissed.

Thesis Option

A student shall complete 36 semester credit hours of technical course work including a maximum of six semester credit hours and minimum of three semester credit hours of EEL 6971-Master's Thesis.

The Supervisory Committee shall determine the appropriate number of thesis hours a student shall be required to take for the thesis. Thus, 30 or more semester credit hours of course work is required.

The course requirements include a minimum of 12 hours of 6000-level course credit and a minimum of nine hours at the 5000-6000 level in Electrical Engineering. No more than six hours of Individual Work (EEL 6905) may be counted toward the degree.

Upon the successful completion of all coursework, including thesis work, and after the determination by the student's advisor that he or she has completed the objectives set for the thesis research, the student must pass a final oral examination which is primarily a defense of the thesis research. The candidate should limit the presentation to 40 minutes, unless told differently by the advisor. The essence of the thesis should be presented in the same manner as that of a technical paper at a conference.

The student must submit the thesis to the examining committee and department chairperson at least ten days prior to the oral examination date. Upon passing the oral examination, and completion of any changes or additions, or both, as required by the committee, each member of the committee will sign a special front page available in the Department. Hardcover bound copies should be submitted to the student's advisor and to the Library. The student should consult with the advisor for approval of all coursework prior to registration.

Non-Thesis Option (By petition only)

A student shall complete 36 semester credit hours of technical course work with a maximum of six semester credit hours of Individual Work (EEL 6905). The course requirements include a minimum of 12 semester credit hours of 6000-level course credit and a minimum of 12 semester credit hours at the 5000-6000 level in Electrical Engineering.

The candidate is required to pass a comprehensive final examination. This examination is given near the end of the candidate's final semester by a committee composed of three faculty members appointed by the Department. A student who fails the examination may not attempt it again until one semester has elapsed or until additional work prescribed by the examining committee is completed. The student may retake the examination only once. The examination will test the student's general ability in his or her areas of study as determined by the student's supervisory committee.

Course Requirements

Common Core

Select three courses with advisor approval

EEL 5482	Fields and Waves Engineering	3
EEL 5500	Digital Communications Systems I	3
EEL 5725	Digital Systems Engineering I	3
EEL 5171	Advanced System Theory	3
EEL 6261	Power Systems Engineering	3
EEL 6311	Advanced Electronics Systems I	3

Select two courses with advisor approval

MAA 4211	Advanced Calculus	3
MAA 4402	Complex Variables	3
MAD 5405	Numerical Methods	3
MAP 4401	Advanced Differential Equations	3
MAP 5117	Math and Statistics Modeling	3
STA 5546	Probability Theory I	3
STA 5447	Probability Theory II	3
STA 5800	Stochastic Processes for Engineering	3

The above two lists may be changed or expanded by the committee.

Remaining course work will be selected by the student and his advisor based on the student's career objectives.

Course Descriptions

Definition of Prefixes

EEL—Engineering: Electrical

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include logic elements, arithmetic logic units, control units, memory devices, organization and I/O devices (for non-EE majors only). Prerequisites: CDA 4101 and MAD 3104.

EEL 3003 Electrical Engineering I (3). For non-EE majors. Basic principles of DC and AC circuit analysis, electronic devices and amplifiers, digital circuits, and power systems. Prerequisite: MAC 3312. Corequisite: MAP 3302.

EEL 3111 Circuits I (3). Introductory electronics courses dealing with the DC, AC and transient electrical circuit analysis, involving passive elements such as resistors, capacitors, inductors, transformers, etc. Prerequisites: MAC 3312, PHY 3049, Corequisites: MAP 3302, FORTRAN, EEL 3111L.

EEL 3111L Circuits Lab (1). This lab introduces basic test equipment; oscilloscopes, multimeters, power supply, function generator, etc., and uses this equipment in various experiments on resistors, capacitors, and inductors. Corequisite: EEL 3111.

EEL 3112 Circuits II (3). Application of operational methods to the solution of electrical circuit effect of poles and zeros on the response and transfer function of electrical networks. Laplace and Fourier transforms; poles, zeros, network parameters. Prerequisites: EEL 3111, MAP 3302, FORTRAN, and EEL 3135.

EEL 3135 Signals and Systems (3). Study of electrical signals and linear systems. Use of Fourier analysis in electrical and electronic systems. Introduction to probability theory and Z transform applications. Prerequisites: MAC 3313, MAP 3302.

EEL 3160 Computer Applications in Electrical Engineering (3). Interactive techniques of computers to simulate and design the electrical engineering circuits and systems. Prerequisites: Permission of instructor and FORTRAN.

EEL 3303 Electronics I (3). Introductory electronics course dealing with the properties of basic electronic devices such as diodes, transistors, Fets, SCRs, etc., and their circuit applications. Prerequisites: EEL 3111L, FORTRAN. Corequisite: EEL 3303L, EEL 3112.

EEL 3303L Electronics I Laboratory (1). Designing, building, and testing electronic circuits which use diodes, transistors and field effect transistors. Prerequisite: EEL 3111. Corequisite: EEL 3303.

EEL 3396 Introduction to Solid State Devices (3). Introduction to the physics of semiconductors; charge carrier statistics and charge transport in crystalline solids. Basic operations of solid state devices including p-n junction diode, and the bipolar junction transistor. Prerequisite: EEL 3111 and MAP 3302.

EEL 3514 Communication Systems (3). An introductory course in the field of analog communication systems. Transmitters, receivers, and different modulation and demodulation techniques are studied. A basic treatment of noise is also included. Prerequisite: EEL 3135. Corequisite: EEL 3112.

EEL 3657 Control Systems I (3). Analysis of linear time-invariant feedback control systems. System modeling, time and frequency-domain response, stability and accuracy. Analysis by use of Root-Locus, Bode plots, Nyquist diagram. Prerequisite: EEL 3112.

EEL 3712 Logic Design I (3). Boolean Algebra. Binary number systems. Combinational logic design using SSI, MSI and LSI. Sequential logic design. Corequisite: EEL 3303 and EEL 3712L.

EEL 3712L Logic Design I Lab (1). Laboratory experiments, including gates, combinational networks, SSI, MSI, LSI, and sequential logic design. Corequisite: EEL 3712.

EEL 4011C Electrical Engineering Systems Design (1-3). Design of a complete EE system including use of design methodology, formulation, specifications, alternative solutions, feasibility, economic, reliability, safety ethics, and social impact. Prerequisites: Senior standing and two EE electives.

EEL 4140 Filter Design (3). Approximation techniques. Active RC second order modules. Low pass filters, bandpass filters, high pass filters, notch filters are studied in detail. Sensitivity and high order filters. Design and laboratory implementation. Prerequisites: EEL 3657, EEL 4304.

EEL 4213 Power System I (3). Introductory course to power systems components; transformer, induction machines, synchronous machines, direct current machines, and special machines. Prerequisite: EEL 4410. Corequisites: EEL 3112, EEL 4213L.

EEL 4213L Energy Conversion Lab (1). Operation, testing, and applications of energy conversion machines including AC and DC motors and generators. Starts with experiments on magnetic circuits and transformers. Prerequisites: EEL 4410. Corequisite: EEL 4213.

EEL 4214 Power Systems II (3). Transmission line models, the bus admittance matrix, load flow studies and solution techniques, economic dispatch with and without losses, computer applications. Prerequisite: EEL 4213.

EEL 4215 Power Systems III (3). Short circuit calculations, symmetrical and unsymmetrical fault analysis, transient stability and dynamic studies as well as power system control. Computer applications. Prerequisite: EEL 4214.

EEL 4304 Electronics II (3). Second course in electronics with particular emphasis on equivalent circuit representation and analysis of electronic analog and switching circuits and systems, their frequency response and behavior under feedback control. Prerequisites: EEL 3112, EEL 3303. Corequisite: EEL 4304L.

EEL 4304L Electronics II Laboratory (1). Design and measurement experience of advanced electronics, including applications of integrated circuits. Prerequisite: EEL 3303L. Corequisite: EEL 4304.

EEL 4307 Electrical Engineering II (3). Electronic circuits. Transistors, FET. Equivalent circuits. Operational amplifiers. Basic digital circuits. Energy conversions. Transformers. Machinery. For non-EE majors only. Prerequisite: EEL 3003

EEL 4314 Integrated Circuits and Systems (3). Continuation of Electronics II with major emphasis on applications of electronic integrated circuits and design of analog, control, communication, and digital oriented electronic systems. Prerequisites: EEL 4304. Corequisite: EEL 4314L.

EEL 4314L Integrated Circuits Laboratory (1). Laboratory experiments in integrated circuits. Includes design of RF systems, analog integrated systems, and A/D and D/A systems. Prerequisite: EEL 4304. Corequisite: EEL 4314.

EEL 4410 Introduction to Fields and Waves (3). Static Electric Field, the Steady Electric Current, Magnetic Field of Ferro magnetic

Materials. The relation between field and circuit theory waves and wave polarization, reflection, refraction, and diffraction. Prerequisite: EEL 3111.

EEL 4461C Antennas (3). Introduction to linear antennas, linear arrays and aperture antennas. Far field pattern calculation and measurement techniques. Prerequisite: EEL 3514.

EEL 4502 Introduction to Digital Signal Processing (3). Z transform. Continuous and digital filters. Design of digital filters. Effects of finite register length in digital filters. Engineering applications of digital filters. Prerequisite: EEL 3514.

EEL 4515 Advanced Communication Systems (3). Advanced senior level course designed for those students who desire to enhance their engineering knowledge in communication systems. State-of-the-art techniques in FM, digital communication, phase locked loops, noise treatment, threshold improvement, etc. Prerequisites: EEL 3514, EEL 4304.

EEL 4611 Control Systems II (3). Design by Root-Locus, Bode plot, and Buillin-Truxal approach; characteristics of some typical industrial controllers and sensors. Computer simulation and other modern topics are included. Prerequisites: EEL 3657, EEL 4304.

EEL 4611L Systems Laboratory (1). Laboratory experiments in various systems. Includes position and velocity control systems, zeroth order, first order, and second order systems. Communication Systems. Use of analog computer to simulate and/or solve systems. Prerequisites: EEL 3657 and EEL 3514.

EEL 4709 Computer Design (3). Computer architecture. Arithmetic units. RAM, ROM, tape, disk memory systems. Data, input/output, and channels. Distributed and centralized control. Prerequisites: EEL 3712, FORTRAN.

EEL 4713 Digital Logic Design II (3). Upper division course in system design using state-of-the-art digital integrated circuits and concepts leading to realization of practical digital electronic systems. Prerequisites: EEL 3712, EEL 3303, and EEL 4757.

EEL 4757 Microcomputers I (3). RAM, ROM, and CPU and architecture. Instruction sets. Timing sequences. Sub-routines. Interrupts. Peripherals. Applications. System design. Prerequisites: FORTRAN, EEL 4709. Corequisite: EEL 4757L.

EEL 4757L Microcomputers I Laboratory (1). Hands-on design experience with microcomputer systems and applications including buses, interfaces, and in-circuit emulation. Prerequisite: EEL 4709. Corequisite: EEL 4757.

EEL 4759 Microcomputers II (3). Design of interfacing schemes of microcomputers such as video, disk, etc. and state-of-the-art hardware and software features of advanced microprocessors families. Prerequisite: EEL 4757.

EEL 4905 Individual Problems in Electrical Engineering (1-3). Selected problems or projects in the student's major field of electrical engineering. It can be extended to a maximum of 9 hours. Student works independently with a minor advisement from designated faculty member. Prerequisite: Senior level and permission of instructor.

EEL 4930 Special Topics in Electrical Engineering (1-3). Special topics covering selected topics in electrical engineering. Prerequisite: Permission of instructor.

EEL 4949 Co-Op Work Experience (3). Practical co-op engineering work under approved industrial supervision. Prerequisite: Sophomore year.

EEL 5071 Bioelectrical Models (3). Engineering models for electrical behavior of nerve and muscle cells, electrode-tissue junctions, volume conductions in tissue and the nervous system as an electrical network. Prerequisite: ELR 4202.

EEL 5085 Bioradiation Engineering (3). Spectrum of radiation sources, types of fields, properties of living tissue, mechanisms of field propagation in tissue. Applications in imaging and therapy, Hazards and safety. Prerequisite: EEL 4410.

EEL 5145 Advanced Filter Design (3). Graduate course in the design and advance analysis of passive and active high order circuits. Use of computer as a design tool. Prerequisite: EEL 4140.

EEL 5171 Advanced Systems Theory (3). State-space representations for continuous and discrete-time systems, controllability and observability, pole-zero allocation, Lyapunov stability theorem, state observers. Prerequisites: EEL 3657 and graduate level or advanced senior standing.

EEL 5270 Electrical Transients in Power Systems (3). Traveling waves on transmission and multi-conductor systems, successive reflections, distributed parameter systems, transients on integrated power systems. Prerequisite: EEL 4213.

EEL 5275 Power Systems Protection (3). Analysis of power systems under faulted conditions using linear transformation. The study of surge, transient and waves on power lines. Computer-aided analysis and design emphasizing the protection of equipment. Prerequisite: EEL 4215.

EEL 5364 High Frequency Amplifiers (3). Analysis and design of high frequency amplifiers and oscillators: stability, scattering parameters, use of the Smith chart and other practical design tools, noise. Prerequisites: EEL 4304, EEL 4410.

EEL 5382 Industrial Electronics (3). A study of solid state devices for the control of power, their applications and limitations in power switching circuits and in the control of physical transducer. Prerequisites: EEL 4213, EEL 4304.

EEL 5437 Microwave Engineering (3). Microwave wave guides. Microwave tubes. Microwave solid state devices. Microwave integrated circuits, Microwave enclosures. Prerequisite: EEL 4410.

EEL 5482 Fields and Waves Engineering (3). Concepts and theorems in fields and waves, analytic techniques for guided waves, radiation and scattering, numerical techniques for analysis of electrical devices using digital computers. Prerequisite: EEL 4410 .

EEL 5500 Digital Communication Systems I (3). Course will consider most important aspects of digital communication systems such as noise related subjects, random signals, linear systems, and baseband digital modulation and multiplexing. Prerequisites: EEL 3135, EEL 3514, EEL 3112C.

EEL 5501 Digital Communication Systems II (3). Course will consider more important aspects of digital communication systems such as matched filters, digital base and modulation, multiplexing, carrier digital modulation and error correction coding. Prerequisite: EEL 5500.

EEL 5524 Statistical Communication Theory (3). Noise, random processes, correlation, spectral analysis in the analysis and design of communication systems. Optimization techniques; minimum mean square error. Prerequisite: EEL 3514.

EEL 5563 Introduction to Optical Fibers (3). Use of fiber optics as a communication medium. Principles of fiber optics: mode theory: transmitters, modulators, sensors, detectors and demodulators: fiber data links. Prerequisites: EEL 3514, EEL 4314 and EEL 4410.

EEL 5613 Digital Control Systems (3). Analysis and design of digital control systems. Z-transforms, analysis and control of discrete-time systems, digital control of analog systems. Several digital controller design methods. Computer simulation and microprocessor implementation. Prerequisite: EEL 4611.

EEL 5718 Computer-Communication Network Engineering (3). System engineering synthesis, analysis, and evaluation of computer-communication networks. Network design, routing and flow control, telecommunication traffic engineering, transmission, switching, etc. Prerequisite: EEL 5501.

EEL 5719 Digital Filters (3). Analysis, design and implementation of digital filters. Hardware and software approach to design. Prerequisites: EEL 4140, EEL 4709.

EEL 5725 Digital Systems Engineering I (3). This course involves systematic studies of digital instrumentation, digital control, digital communication systems concepts and case studies. Prerequisites: EEL 4304, EEL 4757 or equivalent.

EEL 5741 Advanced Microprocessor Systems (3). Interfacing of various microprocessors together. Concepts of master-slave systems, virtual memory and I/O control techniques. Digital system evaluation and optimization. Prerequisite: EEL 4757.

EEL 5935 Advanced Special Topics (1-3). A course designed to give groups of students an opportunity to pursue special studies in an advanced topic of Electrical Engineering not otherwise offered. Prerequisite: Consent of instructor.

EEL 6020 Numerical Analysis of Electrical Devices (3). Numerical techniques for the analysis of static and diffusion eddy current type field problems and associated phenomena in electrical devices. Emphasis on implementation and applications to practical problems. Prerequisites: EEL 4213, MAD 3401 or equivalent.

EEL 6075 Biosignal Processing I (3). Characterizing biosignals by application of time and frequency domain analytic methods. Comparison of analog and digital processing. Engineering design for VLSI implementations in implantable devices. Prerequisites: ELR 4202 and EEL 6505.

EEL 6076 Biosignal Processing II (3). Engineering design of advanced systems for processing biosignals. Methods for signal compression. Adaptive systems for automatic recognition. Application of artificial intelligence for signal classification. Prerequisite: EEL 6075.

EEL 6141 Advanced Network Analysis (3). Modeling and analysis of networks by t-domain and s-domain techniques. Topics include topology, formulation of loop eqs and node pair eqs., state space networks, computer solutions. Prerequisite: EEL 3112 and FORTRAN.

EEL 6223 Dynamic Analysis of Electrical Machines (3). State models of rotating machines, derivation of machine model parameters, modeling of machine and power system dynamics. Includes utilization of digital computers to selected practical problems. Prerequisite: EEL 4213.

EEL 6253 Computer Analysis of Power systems (3). Power systems analysis and designs by computer solutions. Interactive solutions, power flow, optimum solutions. Dynamic solutions and stability. Prerequisite: EEL 4215.

EEL 6254 Power Systems Reliability (3). Expansion planning, load forecasting, reliability and availability application to generation planning, bulk power supply systems, generation system operation and production costing analysis. Prerequisite: EEL 4215.

EEL 6261 Power Systems Engineering (3). steady-state analysis, fault studies, load flow, dynamic and transient performance, on-line control, practical applications. Prerequisite: EEL 4215.

EEL 6273 Power System Stability and Control (3). Direct methods for system stability, computer analysis of large scale models, Lyapunov stability, longer term stability, security analysis, MW-frequency control, isolated and multiple area control. Prerequisites: EEL 4215 and FORTRAN.

EEL 6311 Advanced Electronic Systems I (3). Principles of analog and digital electronics network. Advanced analysis, modeling and computer simulation of op amps. Analog design techniques and practical examples are covered. Prerequisite: EEL 4314.

EEL 6312 Advanced Electronic Systems II (3). Study of linear properties of electronic systems and design of fault tolerant systems using A/D and D/A and control algorithms. Prerequisite: EEL 6311.

EEL 6315 Advanced Solid State Electronics (3). IC technologies, properties and fabrication concepts. Bipolar, MOS, I2L, CCD, bubble technologies. Ion implantation characteristics. Lithography techniques. Prerequisite: EEL 6311.

EEL 6443C Electro-Optical Devices and Systems (3). Introduction to optical devices and systems such as solid state laser systems, their applications in industry. Also holography, linear and non-linear optical modulation and demodulation concepts. Prerequisites: EEL 4410, EEL 4314. Corequisite: EEL 5563.

EEL 6444 Optical Fiber Communication Systems (3). Course focuses on specification, design and application of fiber optic communication systems considering the fiber optic wave guide, optical device sources, photodetector, receiver and transmitter designs. Prerequisite: EEL 5501.

EEL 6505C Digital Signal Processing (3). Treatment of digital signal and system characteristics: Z transforms and FFT theory. Real time and correlation functions. Multidimensional signal processing and digital filtering. Prerequisites: EEL 4502, EEL 4314, EEL 5613.

EEL 6509 Digital Communications by Satellite (3). Course will consider processing and non-processing transponders, earth terminals, propagation link characteristics, multiple access techniques, and spread spectrum techniques. Prerequisite: EEL 5501.

EEL 6614 Modern Control Theory I (3). Graduate level treatment of modern control systems. Optimal control of feedback systems. Performance measures, Pontryagin's minimum principle, dynamic programming, numerical techniques. Prerequisite: EEL 5171.

EEL 6615 Modern Control Theory II (3). Graduate level course in Stochastic control. Stochastic processes, linear estimation, Kalman filtering techniques in state estimation. Design of feedback control in the presence of noise. Prerequisite: EEL 6614.

EEL 6763C Digital Systems Engineering II (3). Analysis and design of time shared digital electronic systems. Artificial intelligence and automation. Robotics and remote control systems. Advanced digital instrumentation and testing. Prerequisite: EEL 5725.

EEL 6905 Individual Work (3). Special problems or projects selected by the students and a faculty member. The student conducts the project with a minimum of supervision. Consent of Department Chairperson and Faculty Advisor.

EEL 6916 Graduate Project (1-3). Independent research work culminating in a professional practice-oriented report for the requirements of the non-thesis option of the M.S. degree project. Prerequisites: Fifteen graduate credits and approved project plan.

EEL 6932 Graduate Seminar (1). An examination of recent technical findings in selected areas of concern. Emphasis is placed on presentations (oral and written), research activities, readings, and active discussions among participants. Prerequisite: Consent of graduate advisor.

EEL 6971 Research Master's Thesis (1-6). The student, following the option of the Master's Degree with thesis, should work for his/her thesis through this course. Prerequisite: Graduate standing.

ELR 4202C Medical Instrumentation Design (4). Concepts of transducers and instrumentation systems; origins of biopotentials; electrical safety; therapeutic and prosthetic devices. Prerequisite: EEL 4304.

Industrial and Systems Engineering

Fred Swift, *Professor and Chairperson*
Hector Carrasco, *Assistant Professor*
John Derrenberger, *Visiting Associate Professor and Director, Fire Science Program*
Bernard J. Greenblott, *Visiting Lecturer*
Khokiat Kengskool, *Assistant Professor*
Shih-Ming Lee, *Assistant Professor*
Sergio Martinez, *Senior Lecturer*
Milton Torres, *Instructor*

Degree: **Bachelor of Science**

As defined by the Institute of Industrial Engineers, Industrial Engineering is "concerned with the design, improvement, and installation of integrated systems of people, materials, equipment, and energy.""Industrial Engineering is the only engineering discipline which is specifically concerned with the role of the human being in the process by which goods and services are produced, and as such is often called "people oriented engineering discipline."" The program as developed at the University will have a very modern component which will emphasize the sophisticated areas of simulation and modeling, automation and robotics, and flexible manufacturing systems. It is soundly based in the traditional Industrial Engineering areas such as work measurement and simplification, probability and statistics, and facility and work place design. The Industrial Engineering curriculum complies with fundamental core of the Industrial Engineering Department at the undergraduate level, and the basic core of Industrial Engineering which is listed below. To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Industrial Engineering Curriculum

EIN 3314	Work Design	3
EIN 3354	Engineering Economy	3
EIN 3365	Facility Planning and Materials Handling	5
EIN 3390	Manufacturing Processes	3
EIN 3393	Production Planning	3
EIN 3394	Quality Control	3
EIN 3600	Introduction to Robotics	3
EIN 4334	Production Control	3
EIN 4116	Industrial Information Systems	3
EIN 4333	Productivity Planning	3
EIN 4334	Production Control	3
EIN 4387	Technology Assessment	3
EIN 4389	Technological Forecasting	3
EIN 4391	Product Design for Manufacturing and Automation	3
EIN 4395	Computer Integrated Manufacturing	3
ESI 3161	Industrial Application of Microprocessors	3
ESI 3314	Generic Models of Industrial Systems	3
ESI 3523	Simulation Models of I.S.	3
ESI 4451	Project Management Systems Design	3
ESI 4454	ISE Systems Design	3
ESI 4556	Industrial and Systems Engineering in the Office	3

Specialization Areas

Five concentration areas are available to students majoring in Industrial Engineering:

1. General Industrial Engineering
2. Operations Research
3. Management Engineering
4. Systems Engineering
5. Computer Integrated Manufacturing and Robotics Systems

Students should contact an advisor in each of these areas.

Aviation Studies Option

Milton Torres, *Airway Science Advisor*

Airway Science is a special option available in the Industrial Engineering Department. Programs in Airway Science Management and Aircraft Systems Management have been developed in cooperation with local community colleges. Special admission requirements apply and applicants must be also eligible for admission into the Industrial Engineering Department. For details, contact the Airway Science Advisor.

In addition, a specialty area is available for Air Traffic Controllers.

Air Traffic Controller

The majority of the coursework is offered in the Industrial Engineering Department and a Bachelor of Science in Industrial Engineering is awarded. To be admitted into this technical program, students must be selected by the Federal Aviation Administration. This is a cooperative program between the University and Broward Community College and Miami Dade Community College.

Aviation Scholarship

The Mickey Dane Scholarship was established at the University in February 1983 through friends and associates of Walter J. Dane to honor his achievements during the 37 years of service to Eastern Airlines. Interest from an endowment fund will be awarded as an annual scholarship to cover tuition and fees. Applications and information is available through the office of Financial Aid.

Course Descriptions

Definition of Prefix

EIN—Engineering: Industrial; ESI—Engineering Systems Industrial.

EGN 3123 Computer Assisted Drawing and Design (3). Application of computer assisted design technology to product design, feasibility study and production drawing. Prerequisite: EGN 1120.

EIN 3102 Collective Bargaining in Industrial Systems (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues.

EIN 3214 Safety in Engineering (3). Introduces occupational safety and health hazards associated with mechanical systems, materials handling, electrical systems, and chemical processes. Illustrates controls through engineering revision, safeguarding, and personal protective equipment. Emphasis placed on recognition, evaluation and control of occupational safety and health hazards.

EIN 3314 Work Design (3). The analysis, design, and maintenance of work methods. Study of time standards, including pre-determined time standards and statistical work sampling. Prerequisite: Junior standing.

EIN 3354 Engineering Economy (3). Methods of economic analysis in engineering including decision problems, value measurement, interest relationships, criteria for decisions under certainty, risk and uncertainty.

EIN 3359 Industrial Financial Decisions (3). The accounting process and use of financial techniques and data in planning, controlling, and coordinating industrial activities. This course is intended to familiarize the student with accounting concepts, analytical methods, and use of accounting information for purposes of operation and control. Prerequisite: EIN 3354.

EIN 3365 Facilities Planning and Materials Handling (5). Application of methods and work measurement principles to the design of work stations. Integration of work stations with storage and material handling systems to optimize productivity.

EIN 3390 Manufacturing Processes (3). Study of interrelationships among materials, design and processing and their impact on workplace design, productivity and process analysis for the industrial engineer. Prerequisite: Permission of instructor.

EIN 3393 Production Planning (3). Forecasting, inventory decisions, material requirement planning and production scheduling as an interrelated set of activities to achieve efficiency and productivity in manufacturing and service organization. Prerequisites: ESI 3314, EIN 3354, EIN 3394.

EIN 3394 Quality Control (3). Modern concepts for managing the quality function of industry to maximize customer satisfaction at minimum quality cost. The economics of quality, process control, organization, quality improvement, and vendor quality. Prerequisite: Statistics

EIN 3600 Introduction to Robotics (3). Basic concepts of industrial robots; technology, performance characteristics, criteria for use, failure/success of industrial experiences; planning, selection, and implementation. Open to non-majors.

EIN 3604 Robotic Assembly Cell (3). Concepts of manipulation, sensors, part design for robotic assembly, analysis of programmable assembly, basic robot motions, precision of movement, robot programming, cell control, material transfer. Prerequisite: EIN 3600

EIN 4104 Introduction to Labor Studies (3). History and development of the labor movement, with emphasis on union development as a response to industrialization and technological change. Includes the structure and functioning of modern unions, the development of modern technology, the industrial working class, and the impact of the rural-urban shift of labor.

EIN 4116 Industrial Information Systems (3). The integration of information flows and data bases with the production planning and control systems into productive and manageable systems.

EIN 4122 Industrial Marketing (3). The performance of business activity that directs the flow of goods and services from producer to industrial user. Covers new product development, marketing research, sales engineering, pricing, distribution, and promotion.

EIN 4264 Industrial Hygiene (3). A continuation of Safety in Industry. An introduction to OSHA regulations on health hazards. Noise, radiation, and dust problems in industry. Special hazards with solvents, asbestos, lead, silica, and other chemicals. OSHA compliance procedures.

EIN 4326 Industrial Research and Development (3). Research and development for new product strategies, technological assessment, patent and product liability, and sales engineering. An independent study product will be required by each student. Prerequisite: Senior status.

EIN 4333 Productivity Planning (3). The improvement of productivity as a functional activity of the enterprise. Productivity definitions, measurement, methodologies, and reporting systems. Prerequisites: EIN 3314, ESI 3161, and STA 3033.

EIN 4334 Production Control (3). Basic concepts of input, output, and feedback as they apply to the design of quality, inventory, and production scheduling systems. Prerequisites: EIN 3393, EIN 3365.

EIN 4387 Technology Assessment (3). Development of systematic efforts to anticipate impacts on society that may occur when a technology is introduced, extended, or modified. Prerequisite: Senior standing in Engineering.

EIN 4389 Technological Forecasting (3). Emphasis on forecasting future trends and specific developments in the area of capabilities and needs. Prerequisites: Senior standing in Engineering, EIN 3393.

EIN 4391 Product Design for Manufacturability and Automation (3). Design and review of designs of manufactured products. Integration of the product design for function, and the process design for manufacturability. Prerequisites: EIN 3600 and EIN 3390.

EIN 4395 Computer Integrated Manufacturing (3). The integration of computer aided design and computer aided manufacturing. Development of a common data base for design and manufacturing. Developments of flexible manufacturing systems. Prerequisites: EIN 3600, ESI 3523.

EIN 4601 Robotic Systems (3). System principles, functional requirements of robotic system, simulation of system solutions, physical experimentation of system with several robotic cells, economics of robotic systems. Prerequisite: EIN 3604.

EIN 4933 Special Topics in Industrial Engineering (2-3). Permits in-depth study in areas relating to specific student interests, recent advances, and problems in industrial technology or systems. Prerequisite: Senior standing, consent of faculty advisor and approval of department chairman.

ESI 3161 Industrial Applications of Microprocessors (3). Basic concepts of microprocessors; an overview of computer architecture, local area networks, micro-mainframe linking, and operating systems as they apply to industrial systems. Prerequisites: CGS 3420, or equivalent.

ESI 3314 Generic Models of Industrial Systems (3). Modeling principles with emphasis on linear programming and extensions. The simplex procedure and its application through computer software packages. The analysis and interpretation of results in decision making.

ESI 3523 Simulation Models of Industrial Systems (3). Simulation methodology, design of simulation experiments, implementation of simulation effort through computer software. Application to the solution of industrial and service system problems. Prerequisite: ESI 3161 and STA 3033.

ESI 4451 Project Management Systems Design (3). Project planning, scheduling and control using activity network logic, such as PERT and CPM. Students will be expected to identify and plan an integrative ISE capstone group project using computer software. Prerequisite: ESI 3314.

ESI 4554 ISE Systems Design (3). To integrate all prior ISE required courses into a cohesive and consistent professional philosophy. Prerequisite: ESI 4451.

ESI 4556 Industrial and Systems Engineering in the Office (3). Paperwork reduction, overhead and expense cost containment, and white collar productivity through office automation and systems analysis. Prerequisite: Senior standing in IE.

Mechanical Engineering

Gautam Ray, *Professor and Chairman*
M.A. Ebadian, *Associate Professor*
W. Kinzy Jones, *Associate Professor*
Janet Lantner, *Assistant Professor*
Rene Leonard, *Associate Professor*
Cesar Levy, *Assistant Professor*
Emmanuel Nwadike, *Associate Professor*
Mordechai Peri, *Visiting Research Professor*
Fredrick Swift, *Professor*
Kuang-Hai Wu, *Assistant Professor*
Tachung Yih, *Assistant Professor*
Manuel Viamonte, *Courtesy Professor, Chief of Radiology, Mt. Sinai Medical Center, Miami Beach*

The academic program provides a well balanced curriculum in the following two major areas of Mechanical Engineering:

Fluid/Thermal Science and Energy Systems
Mechanics and Control of Mechanical and Dynamic Systems
Further specializations in any of the following areas may be obtained by the proper choice of electives:

Fluids/Thermal and Energy Systems
Mechanics, Materials and System Design
Biomechanics and Biomedical Engineering
Manufacturing Methods

The courses in the Manufacturing Methods area are offered by the Industrial Engineering department. Biomechanics and Biomedical Engineering are areas of interdisciplinary studies and the courses in these areas are offered by both the Mechanical and Electrical Engineering departments. Laboratory experiences in the Clinical and Diagnostic Imaging area are offered at the Mt. Sinai Medical Center, Miami Beach, Florida.

A Bachelor's degree in Mechanical Engineering provides students the background suitable for immediate employment in the engineering industries, as well as excellent preparation for graduate studies in Engineering, Medicine, Law, and Business Administration.

Degree: **Bachelor of Science**

The qualification for admissions to the Department of Mechanical Engineering are the same as for admission to the School of Engineering and Applied Sciences.

The academic program is designed to satisfy the criteria outlined by the Accreditation Board for Engineering and Technology (ABET), as well to meet the State of Florida's articulation policy (Gordon Rule). Entering freshmen at FIU may also have to satisfy additional requirements and are, therefore, urged to seek advisement from the Undergraduate Studies Office as well as from the Mechanical Engineering department's office of advisement. The minimum requirements for graduation in Mechanical Engineering consist of two parts: 1) Mathematics, Basic Sciences, Humanities and Social Sciences requirements, and 2)Engineering Sciences, Engineering Design, Laboratory and Elective requirements. Detailed outlines (with the number of required semester hours) are given below:

Requirements in Mathematics, Basic Sciences, Humanities and Social Sciences :

Mathematics, including Elective	**17**
Physics with Laboratory	**12**
Chemistry with Laboratory	**5**
Computer Programming	**3**
English, including Technical Writing	**9**
Humanities and Social Science	**(min) 16**

In meeting the requirements in Humanities and Social Sciences, the student should take at least two courses which form a sequence, of which the last course in the sequence is at an advanced level.

Mechanical Engineering Curriculum
Engineering Science, Engineering Design, Laboratory and Elective requirements:

EGN 1120	Engineering Drawing	**3**
EGN 2311	Statics	**3**
EGN 2321	Dynamics	**3**
EGN 3365	Materials in Engineering	**3**
EGM 3520	Engineering Mechanics of Materials	**3**
EGM 3520L	Materials Testing Lab	**1**
EGN 3353	Fluid Mechanics	**3**
EGN 3353L	Fluid Mechanics Lab	**1**
EGN 3343	Thermodynamics I	**3**
EML 3101	Thermodynamics II	**3**
EML 3262	Kinematics & Mechanisms Design	**2**
EML 3222	System Dynamics	**2**

EML 4220	Mechanical Vibrations	2
EML 4312	Automatic Control Theory	3
EML 4140	Heat Transfer	3
EIN 3390	Manufacturing Processes	3
EEL 3003	Electrical Engineering I	3
EEL 3111L	Circuit Lab	1
EML 3301L	Instrumentation & Measurement Lab	2
EEL 4307	Electrical Engineering II	3
EML 4906L	Mechanical Lab I	1
EML 4412L	Mechanical Lab II	1
EGN 3353L	Fluid Mechanics Lab	1
EGM 3520L	Materials Testing Lab	1
EML 3500	Mechanical Design I	3
EML 4501	Mechanical Design II	3
EML 4706	Design of Thermal & Fluid Systems	3
EML 4905	Senior Design Project	4
EML Design Elective		3
Technical Elective		3
EML or other Elective		3
EML 4936	Mechanical Engineering Seminar[1]	1

[1] Attendance during the senior year is a requirement for graduation.

Laboratories

Over and above the laboratory requirements in Physics and Chemistry, the program consists of 7 semester hours of required Engineering laboratory work. The students are assigned 2 hours of laboratory work (1 hour in Instrumentation and Measurement Lab and 1/2 hour each in Mechanical Lab I and II) which are specially devoted to solving design problems by using experimental methods. The laboratory experience includes the following areas: Fluid Mechanics, Mechanics of Materials and Testing, Advanced Applications in Fluid and Thermal Science, Instrumentation and Measurement, Vibration and Circuits Laboratory. The elective areas offer the following additional laboratory experiences: Biomechanics and Image Processing and Analysis, Refrigeration and Air Conditioning, Computer Integrated Manufacturing, Computer Aided Design and Materials.

Electives

The four concentration areas of the Mechanical Engineering program with their elective offerings are listed below.

Fluids/Thermal and Energy Systems: (41 semester hours)

EML 3450	Energy Systems	3
EML 4130	Internal Combustion Engines	3
EML 4411	Mechanical Power Theory	3
EML 4419	Propulsion Systems	3
EML 4601	Refrigeration and A/C Principles	3
EML 4601L	Refrigeration & A/C Lab	2
EML 4603	Air Conditioning Design I	3
EML 4705	Gas Dynamics	3
EML 5104	Classical Thermodynamics	3
EML 5152	Intermediate Heat Transfer	3
EML 5153	Advanced Heat Transfer	3
EML 5709	Intermediate Fluid Mechanics	3
EML 5712	Advanced Fluid Mechanics I	3
EML 5715	Computational Fluid Dynamics	3

Mechanics, Materials and System Design: (46 semester hours)

EMA 3066	Polymer Science and Engineering	3
EGM 3311	Analysis of Mechanical Systems	3
EGM 3503	Applied Mechanics	3
EMA 4121	Physical Metallurgy	3
EMA 4121L	Materials Lab	1
EMA 4223	Mechanical Metallurgy	3
EML 3301	Instrumentation	3
EML 4260	Dynamics of Machinery	3
EML 4535	Mechanical Computer Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EGM 4610	Introduction to Continuum Mechanics	3
EGM 5111	Experimental Stress Analysis	3
EML 5125	Classical Dynamics	3
EGM 5351	Finite Element Methods in Mechanics	3
EGM 5533	Advanced Mechanics of Materials	3
EGM 5653	Theory of Elasticity	3

Biomechanics and Biomedical Engineering: (31 semester hours)

ELR 4202	Medical Instrumentation	3
EGM 4580	Principles of Bioengineering	3
EGM 4580L	Biomedical Engineering Lab	1
EGM 4581	Biomechanics of Cardiovascular Systems	3
EGM 4582	Engineering Hemodynamics	3
EGM 4583	Orthopaedic Biomechanics	3
EML 4585	Design of Biomedical Systems & Devices	3
EEL 5071	Bioelectrical Models	3
EEL 5085	Bioradiation Engineering	3
EEL 6075	Biosignal Processing I	3
EEL 6076	Biosignal Processing II	3

Manufacturing Methods: (18 semester hours)

EIN 3354	Engineering Economy	3
EIN 3600	Introduction to Robotics	3
EIN 4391	Product Design for *Manufac.& Automation	3
EIN 4395	Computer Integrated Manufacturing	3
EML 4535	Mechanical Computer Aided Design	3
EML 4561	Introduction to Electronic Packaging	3

Students with special needs may take other elective courses (not listed above) with their advisor's permission. Students are not restricted to these four areas but may choose courses, with the advisor's consent, that will form a coherent concentration area. Co-op work experience or special topics, or both, may be counted as electives.

Course Descriptions

Definition of Prefixes

EGM—Engineering Mechanics; EGN—Engineering; General; EMA—Engineering; Materials; EML—Engineering: Mechanical

EGM 3311 Analysis of Mechanical Systems (3). Analysis of mechanical engineering problems and their solutions via analytical and numerical means. Statistical methods in designing mechanical engineering experiments. Governing equations for energy and dynamic systems and methods available for solutions will be discussed. Prerequisites: MAP 3302 and EGN 2321.

EGM 3503 Applied Mechanics (3). Statics and dynamics of solids and fluids. Science of engineering materials. Open to non-mechanical engineering students only. Prerequisite: MAC 1114.

EGM 3520 Engineering Mechanics of Materials (3). Analysis of axial, torsional, bending and combined stresses and strains. Plotting of shear, moment and deflection diagram with calculus applications and interpretations. Prerequisites: EGN 2311 and MAC 3312.

EGM 4580 Principles of Bioengineering (3). Medical Instrumentation and design, regulations for medical devices, application of computers in medicine, biomaterials, biocommunications, artificial implants; clinical engineering. Prerequisite: Senior standing.

EGM 4580L Biomedical Engineering Lab (1). Introduction to the principles of biological signal measurements, biological data acquisition and image processing. Prerequisite: Senior standing.

EGM 4581 Biomechanics of Cardiovascular Systems (3). Functional cardiovascular physiology and anatomy analysis and computation of cardiovascular flow; constitutive properties of tissue; coronary and systemic circulation; flow and stress considerations in cardiovascular assist devices. Prerequisites: EGN 3520, EGN 3353, EGM 4580.

EGM 4582 Engineering Hemodynamics (3). Fluid mechanics of the circulatory system; rheology of blood; lubrication mechanics. Prerequisite: EGN 3353.

EGM 4583 Orthopaedic Biomechanics (3). Introduction to the fundamentals of human musculoskeletal physiology and anatomy and computation of mechanical forces as it applies to orthopaedic biomechanics. Prerequisites: EGN 2321 and EGM 3520.

EGM 4610 Introduction to Continuum Mechanics (3). Introduction to modern continuum mechanics, mathematical preliminaries, stress and equilibrium, deformations and compatibility, constitutive equations, balance laws, problems solution strategies. Prerequisite: EGM 3520.

EGM 5315 Intermediate Analysis of Mechanical Systems (3). First course at the graduate level in the analysis of mechanical systems. Modeling of the system and analytical and numerical methods of solution of the governing equations will be studied. Fluid and thermodynamic systems will be emphasized in this course. Prerequisites: MAC 3302, EGN 3353, EGN 3343, EML 4140, and EGM 3311.

EGM 5610 Synthesis of Engineering Mechanics (3). Various theories and analysis in Engineering Mechanics useful for analysis of continuous media will be covered in a unified way. Emphasis will also be given to constitutive equations and mechanical behavior of materials as it applied to mechanics of continuous media. Prerequisites: MAC 3302 and EGN 3520.

EGM 6585 Solid Mechanics Application in Physiological Systems (3). Solid mechanics principles including numerical methods such as finite elements as it is applied to the analysis of various physiological systems will be covered. Special emphasis will be given to the studies of tissue rehology, analysis of musculoskeletal systems and trauma; analysis design and materials considerations in organs such as total hip prostesis and heart valve. Prerequisite: EGM 4580 or permission of instructor.

EGM 6586 Fluid Mechanics Application in Physiological Systems (3). Fluid mechanics principles including finite element and finite difference methods as it is applied to the analysis of various physiological systems will be covered. Process flow, diffusion and transport will be discussed in cardiovascular and pulmonary systems. Application of these primarily in the design of heart-lung machine, dialysis units and heart valves will be discussed. Prerequisite: EGM 4580 or permission of instructor.

EGM 6587 Applied Biomedical and Diagnostic Measurements (3). Fundamentals of Hemodynamic measurements and various imaging modalities will be covered. The students will be spending some time in clinical laboratories in making actual measurements. The course will be taught in collaboration with the Diagnostic Radiology Department at Mt. Sinai Medical Center. Prerequisite: EGM 4580 or permission of instructor.

EGN 1120 Engineering Drawing (3). Laboratory experiences in the principles and practica of idea development and expression through free hand sketching and conventional instrument drafting. A beginning course for students with no prior drafting experience.

EGN 2311 Statics (3). Forces on particles, and two and three dimensional rigid bodies, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures; vector approach is utilized. Prerequisites: PHY 3048 and MAC 3412

EGN 2321 Dynamics (3). Study of the motion of particles and rigid bodies, conservation of energy and momentum. A vector approach is utilized. Prerequisite: EGN 2311.

EGN 3343 Thermodynamics I (3). Fundamental concepts of basic thermodynamics including first and second law topics, equations of state and general thermodynamic relationships. Prerequisites: MAC 3412, PHY 3048.

EGN 3353 Fluid Mechanics (3). A study of the properties of fluids and their behavior at rest and in motion. Buoyancy and stability. Momentum and energy considerations in fluid flow. Prerequisite: EGN 2321. Corequisite: EGN 3353L

EGN 3365 Materials in Engineering (3). A study of materials used in engineering. Includes atomic structure phase diagrams and reactions within solid materials. Prerequisite: CHM 1045.

EMA 3066 Polymer Science and Engineering (3). Introduction to preparation, molecular structure - property relationships, processing and applications of macromolecular materials. Prerequisite: EGN 3365.

EMA 4121 Physical Metallurgy (3). Correlation of properties, structural and mechanical history, thermal history and service behavior of various metals and their alloys. Prerequisite: EGN 3365.

EMA 4121L Materials Laboratory (1). Laboratory techniques in materials, including metallography, mechanical testing, heat treatment and non-destructive testing techniques. Prerequisite: EGN 3365.

EMA 4223 Mechanical Metallurgy (3). Fundamentals of plastic deformation of crystalline solids: elementary theory of statics and dynamics of dislocations; applications to deformation of single crystals and polycrystals; fracture of metals. Prerequisite: EGN 3365.

EML 3101 Thermodynamics II (3). Continuation of Thermodynamics I covering reactive and nonreactive mixtures and various thermodynamic cycles. Prerequisite: EGN 3343.

EML 3222 Systems Dynamics (2). Introduction to modeling of mechanical systems; derivation of system equations and system's response; free and forced vibrations of multidegree of freedom systems; application to instruments and control. Prerequisites: MAP 3302, EGN 2321, EGM 3520.

EML 3262 Kinematics and Mechanisms Design (2). Fundamentals of kinematics and mechanism design; study of the mechanisms used in machinery and analysis of the motion obtained. Two and three dimensional analytical and numerical methods of design. Prerequisite: EGN 2321.

EML 3301 Instrumentation (3). A practical study of common instrumentation techniques. Prerequisite: EEL 3003.

EML 3301L Instrumentation and Measurement Laboratory (2). A practical study of common instrumentation elements and measurement systems used in mechanical and electro-mechanical applications. Prerequisite: EEL 3003, EEL 3111L.

EML 3450 Energy Systems (3). Review of theory and engineering aspects of conventional energy conversion systems, fuels and combustion, fossil fuels, and nuclear power plants. Aspects of direct energy conversion. Prerequisite: EGN 3343.

EML 3500 Mechanical Design I (3). Design of basic machine members including shafts, springs, belts, clutches, chains, etc., Prerequisites: EGN 2321, EGM 3520, EGN 3365.

EML 4130 Internal Combustion Engines (3). Engine types, characteristics and operation. Performance factors, fuel combustion, power cycles. Knock and engine variables. Exhaust emissions. Fuel Metering. Compressors and turbines. Prerequisite: EML 3101.

EML 4140 Heat Transfer (3). Study of fundamentals of basic heat transfer including conduction, convection, and radiation. Computer applications. Prerequisites: CGS 3420, EGN 3343.

EML 4220 Mechanical Vibrations (2). Theory and application of mechanical vibrations. Includes damped and undamped vibrations with one or more degrees of freedom. Prerequisites: EGN 2321, EGM 3520.

EML 4260 Dynamics of Machinery (3). Acceleration and force analysis of reciprocating and rotating mechanisms and machines. Dynamic balancing of idealized systems. Torsional and lateral critical speeds of a rotor and self-excited instability. Prerequisite: EGN 2321.

EML 4312 Automatic Control Theory (3). Feedback control systems; stability analysis; graphical methods. Applications with emphasis on hydraulic, pneumatic and electromechanical devices. Prerequisites: EGN 2321, and (EML 3222 or permission of advisor).

EML 4411 Mechanical Power Theory (3). Study of various techniques used in generating power. Emphasis of large central station power plants. Prerequisite: EGN 3343

EML 4412L Mechanical Lab II (1). Experiments in internal combustion engines, gas turbines, steam turbines, boilers, motions an mechanics. Prerequisites: EGN 3343, and (EML 4220 or permission of advisor).

EML 4419 Propulsion Systems (3). Basics of air breathing and rocket engines used in flight systems, gas turbine and ramjet fundamentals. Introduction to compressor and turbine design. Propulsion performance. Unconventional means of propulsion in space. Prerequisites: EGN 3343, EML 4705.

EML 4501 Mechanical Design II (3). Continuation of design analysis of elementary machine elements, including lubrication bearings, and gearings. Introduction to advanced analysis techniques. Prerequisite: EML 3500.

EML 4535 Mechanical Computer Aided Design (3). Introduction to computer in the design process. Course emphasize the use of interactive computing and computer graphics in developing CAD applications. Programming project is required. Prerequisites: CGS 3420 and EGN 2321.

EML 4561 Introduction to Electronic Packaging (3). Introduction to mechanical packaging of electronic systems. Integrates concepts in mechanical engineering to the packaging of electronic systems, such as hybrid microelectronics. Prerequisites: EEL 3003, EEL 3111L.

EML 4585 Design of Biomedical Systems and Devices (3). Mechanical design and material choices of various biomedical systems and devices such as cardiovascular assist devices, total artificial heart, pulmonary assist devices, total hip prosthesis and other orthopaedic devices. Prerequisites: EGN 3365, EGN 3520, EGN 3353 or permission of instructor.

EML 4601 Refrigeration and Air Conditioning Principles (3). The theory, operation, and control of various types of cooling systems. Prerequisite: EGN 3343.

EML 4601L Refrigeration and Air Conditioning Lab (2). Experiments in Air Conditioning applications. Corequisite: EML 4601.

EML 4603 Air Conditioning Design I (3). Psychometry comfort; mechanical refrigeration; heat pumps load calculations; cooling coil performance; heating and humidification; and distribution duct design fans. Prerequisite: EML 4601 or permission of instructor.

EML 4705 Gas Dynamics (3). Basic equations of motion for the flow of a compressible fluid, isentropic flow, normal and oblique shock waves, linearized flows method of characteristics and supersonic thin-air foil theory. Prerequisites: EGN 3353, EGN 3343.

EML 4706 Design of Thermal and Fluid Systems (3). Design of thermal and fluid systems and components. Piping networks, duct works. Selection of pumps and fittings. Basic design of heat exchangers, turbomachinery, pumps, and fans. Prerequisites: EGN 3353, EML 4140, EML 3101.

EML 4905 Senior Design Project (1-3). Project course introducing methods of research; a survey, analysis, or apparatus project in mechanical engineering or a research on a current problem in engineering. Prerequisite: Senior standing and approval by advisor.

EML 4906L Mechanical Lab I (1). Experiments with various types of mechanical equipment including engines, fans, boilers, pumps, etc. Corequisites: EGN 3343, EGN 3353.

EML 4930 Special Topics/Projects (1-3). Individual conferences, assigned readings, and reports on independent investigations selected by the students and professor with approval of advisor.

EML 4936 Mechanical Engineering Seminar (1). Review sessions will include topics covering recent advances in various subspecialties of Mechanical Engineering topics related to professional practices. Prerequisite: Senior standing.

EML 4949 Co-op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.

EML 5104 Classical Thermodynamics (3). Mathematical analysis of the laws of classical reversible and irreversible thermodynamics. Applications to mechanical, electromagnetic, and chemical systems, under ideal and real current interest. Prerequisite: EML 3101.

EML 5107 Intermediate Thermodynamics (3). Thermodynamic approach to processes and engines; alternative formulations and Legendere transformations; Maxwell relations, First and Second Order phase transitions. Prerequisites: EML 4101 and EGM 3311.

EML 5708 Advanced Design of Thermal and Fluid Systems (3). Design of thermal and fluid components such as pumps, compressors and heat exchangers. Design of thermal and fluid systems such as heating, ventilating and air conditioning systems. Introduction to thermal and fluid control devices. Prerequisite: EML 4706.

EML 5125 Classical Dynamics (3). Kinematics of rigid body motion, Eulerian angles, lagrangian equations of motion, inertia tensor, momental ellipsoid. Rigid-body equations of motion, Euler's equations, force-free motion, polhade and herpolhade, theory of tops and gyroscopes. Variational principles. Hamiltonian equations of motion. Poinsote representation. Prerequisites: MAP 3302 and EGN 2321.

EML 5152 Intermediate Heat Transfer (3). Multi-dimensional heat conduction under steady and transient conditions. Heat, mass and momentum transfer. Radiation heat transfer. Gas radiation. Free and forced convection. Prerequisites: EML 4140 and EML 5709.

EML 5153 Advanced Heat Transfer (3). Review of analogies among heat, mass and momentum transfer. Free and forced convection from theoretical and experimental viewpoint for laminar and turbulent flows. Film and dropwise condensation. Prerequisite: EML 5152.

EML 5265 Computer Aided Design and Analysis of Mechanical Systems (3). Design and analysis of a mechanical system, using state of the art techniques, will be introduced. Basic design criterion and general analytical approaches for the planar mechanical systems will be emphasized. Geometric modeling of spatial mechanical systems will be illustrated. A knowledge of CAD systems is required. Prerequisites: EML 4260 and EML 4535.

EML 5709 Intermediate Fluid Mechanics (3). Basic concepts and scope of fluid dynamics; non-inertial reference frames. Two-dimensional potential theory. Applications to airfoils. The Navier-Stokes equations; selected exact and approximate equations. Prerequisite: EGN 3353.

EML 5712 Advanced Fluid Mechanics I (3). Turbulent flows with emphasis on engineering methods. Momentum, energy, and species transfer. Production, dissipation, and scaling laws for turbulence. Mixing length, effective viscosity. Prerequisite: EML 5709.

EML 5715 Computational Fluid Dynamics (3). Basic computational methods for incompressible and compressible flows. Methods for solving the stream function equation. Boundary conditions for vorticity and steam function equations. Finite difference and finite element techniques. Prerequisites: CGS 3420, EML 5712.

EML 6154 Conduction Heat Transfer (3). Heat transfer by conduction for steady and unsteady One and Multidimensional systems with and without heat generation. Temperature distribution analysis using analytical and computational methods. Prerequisite: EML 5152.

EML 6155 Convection Heat Transfer (3). Development and solution of governing equations of parallel flows, boundary layer flows, instability and turbulence with convection heat transfer. Prerequisite: EML 6155.

EML 6233 Fatigue and Failure Analysis (3). A study of the theoretical and practical aspects of material failure including failure modes, life prediction, corrosion with the goal of designing a safe product. Prerequisite: EGM 5610.

EML 6225 Advanced Mechanical Vibration Analysis (3). Multidegree of freedom systems, discrete and continuous systems; vibration control and introduction to vibration of non-linear systems. Prerequisites: EML 4220.

EML 6239 Fracture Mechanics (3). Failure criteria and the different modes of fracture; stress intensity factor; the J integral; Viscous and Plastic Fracture Mechanics and crack displacement models will be studied. Prerequisites: EGM 5610.

EML 6318 Advanced Analysis of Mechanical Systems (3). The continuation of intermediate analysis of mechanical systems. Emphasis will be placed on vibrational and dynamic systems. The course will include modeling, analytical and numerical methods for the type systems studied. Prerequisite: EGM 5315 or permission of instructor.

EML 6536 Advanced Application In Mechanical Computer Aided Design (3). Advanced CAD techniques in the design of mechanical systems. Architecture of CAD systems including database applications. Advanced computational geometry. Student programming project is required. Prerequisites: EML 4535 and EML 5265.

Professional Certificate Programs

Department of Apparel Studies

Advanced Apparel Design

To enter the program, students must have an Associate of Arts or Associate in Science in Fashion Design, or equivalent, or two years of industry experience in design. Students must have completed the following prerequisite course or have industry experience in these areas: Patternmaking I and II, Draping I and II, Fashion Illustration, Garment Construction, and Design I and II. Students must pass a competency test prior to entering the program. This certificate has been recommended and approved by the Apparel Design Industry Advisory Committee. A minimum grade of 'C' or better is required in all courses for completion of the certificate.

Required Courses: (23 semester hours)

CTE 3715	Fabrication of Design	3
CTE 3755	Advanced Pattern and Draping	3

Design Electives: Select four courses

CTE 3771L	Menswear Design	2
CTE 3772L	Childrenswear Design	2
CTE 4774L	Womenswear Design	2
CTE 4775L	Sportswear Design	2
CTE 4773L	Active Sportswear Design	2
CTE 4770L	Swimwear Design	2

General Electives (Select three courses): (8)

CTE 3363L	Commercial Garment Production I	3
CTE 3748L	Pattern Grading	2
CTE 3733L	Fashion Illustration	3
CTE 4768	Industrial Apparel Assembly and Costing	3
CTE 4767	Apparel Quality Assurance	3

Apparel Manufacturing Management

A Professional Certificate is offered in Apparel Manufacturing Management acknowledging that students have demonstrated manufacturing management competencies specifically related to the apparel industry. This Certificate is primarily designed to meet the needs of those presently employed in the apparel industry who desire the management skills necessary for career effectiveness and mobility. The courses are planned and taught under the guidance of an advisory committee of local leaders in the apparel industry.

A Certificate in Apparel Manufacturing Management will be awarded upon satisfactory completion of twenty-five credits as listed in the Certificate requirements. These courses may be taken by non-degree seeking students with the advice of the Certificate Program Director. Students should complete an application form at the time of their first course registration.

It is recommended that the courses be completed in the following order:

Required Courses: (25 semester hours)

CTE 3461	Apparel Fabrics	2
CTE 3742L	Commercial Pattern Analysis	2
CTE 3743L	Pattern Grading Analysis	2
CTE 3762L	Cutting Analysis and Material Utilization	3
CTE 3763L	Machine Evaluation and Selection	3
CTE 3766L	Apparel Work Measurement	3
CTE 4767	Apparel Quality Assurance	3
CTE 4768L	Industrial Apparel Assembly and Costing	3
CTE 4769L	Apparel Production Planning and Scheduling	4

Apparel Merchandising Management

This certificate is offered to students who have completed at least two years of college and would like to gain knowledge in Apparel Merchandising Management. It is not necessary that prior college courses be in apparel related fields. This certificate program has been recommended and approved by the Apparel Merchandising Industry Advisory Committee. However, students should be advised that most major department stores require a Bachelor's degree for entrance into their executive training programs. A minimum grade of 'C' or better is required in all courses for completion of the certificate.

Required Courses: (16 semester hours)

CTE 3401L	Survey of Textiles	4
CTE 3761	Fashion Production and Distribution	3
CTE 3815	Apparel Retail Operations I	3
CTE 3821	Quantitative Decisions I	3
CTE 4827	Fashion Buying	3

Elective Courses: Select two courses (6 semester hours)

CTE 4822	Quantitative Decisions II	3
CTE 3852	Visual Merchandising	3
CTE 4832	Apparel Inventory Management	3
CTE 4842	Product Knowledge	3
CTE 4851	Fashion Promotion	3
CTE 4814	Apparel Entrepreneurship	3

Department of Industrial Engineering

Industrial Safety

The objective of the Professional Certificate Program in Industrial Safety is to present an integrated learning experience that will provide the student with a minimum level of expertise in the specialized area of Occupational Safety. Particular emphasis will be placed on application, interpretation, and administration of the Federal Occupational Safety and Health Act and other regulations in an industrial setting.

The certificate is intended to provide skills which will be directly applied in industry.

The Certificate will be awarded to any student who successfully completes a specified 18 credit program with a grade of 'C' or higher.

Industrial and Labor Relations

The objective of the Professional Certificate Program in Industrial and Labor Relations is to produce options to both baccalaureate degree seeking students and pre- and post-baccalaureate students in the fields of Labor Studies, Industrial Personnel Operations, and Collective Bargaining and Labor-Management Relations.

The Certificate will be awarded to any student who successfully completes a specified 18 credit program with a grade of 'C' or higher.

Production and Manufacturing

The objective of the Professional Certificate Program in Production and Manufacturing is to provide students desiring professional work in the field of Production and Manufacturing with a sequence of courses which will update those students already employed and will satisfy local industry's need for technologically skilled individuals in Production and Manufacturing. The Certificate includes courses designed to give the student knowledge of processes, cost, planning and control in addition to electives in specialized subjects.

The Certificate will be awarded to any student who successfully completes a specified 18 credit program with a grade of 'C' or higher.

Department of Mechanical Engineering

Heating, Ventilation, and Air Conditioning Design

The purpose of this Professional Certificate program is to produce a learning experience that will enhance the design capabilities of professionals in the field. Emphasis will include engineering science background as well as practical applications of systems design.

Interested applicants must contact the department chairperson prior to registering for the program.

The Certificate will be awarded to a student who successfully demonstrates competency in:

EGN 3343	Thermodynamics I	3
BCN 3560	Mechanical Systems in Construction	3
EML 3450	Energy Systems	3
EML 4930	Special Topics	1-3
EML 4601	Principles of Air Conditioning and Refrigeration	3
EML 4603	Air Conditioning Design I	3
EML 4906L	Mechanical Laboratory I	2
EML 4601L	Air Conditioning and Refrigeration Laboratory	2
EIN 3354	Engineering Economy	3

Drinking Water Research Center

William J. Cooper, *Director*

The Drinking Water Research Center conducts basic and applied studies in the area of water resources as it relates to drinking water quality and quantity. The Center also provides the opportunity for undergraduate and graduate students to conduct independent research in cooperation with other departments in the University. See the General Information section 'Centers and Institutes' for more details regarding the Center.

Staff

William J. Cooper, Ph.D. *(University of Miami), Associate Research Scholar/Scientist and Director*

Robert J. Fennema, Ph.D. *(Washington State University), Assistant Professor*

Ronald D. Jones, Ph.D. *(Oregon State University), Assistant Professor*

Frances Parsons, Ph.D. *(University of Miami), Associate Research Scholar/Scientist.*

College of Engineering and Applied Sciences

Dean	*Gordon R. Hopkins*
Associate Dean	*Manuel R. Cereijo*
Associate Dean (Acting)	*James R. Story*

Chairpersons:

Apparel Studies	*Adele Smith*
Civil and Environmental Engineering	*Luis Prieto-Portar*
Construction	*Ralph B. Johnson*
Electrical Engineering	*James R. Story*
Industrial Engineering	*Fredrick Swift*
Mechanical Engineering	*Gautam Ray*

Directors:

Drinking Water Research Center	*William J. Cooper*
International Association for Housing Science	*Oktay Ural*
Computer-Aided Engineering Center	*Neil Hoot-Cooper*

Coordinators:

FEEDS (Florida Engineering Educational Delivery Systems)	*Debra Sheridan*
STAC (Southern Technology Application Center)	*Adriana Y. Cantillo*

Faculty

Andrian, Jean, Ph.D. *(University of Florida), Assistant Professor, Electrical Engineering*

Aurioles, Gabriel, Ed.D. *(Florida Atlantic University), Associate Professor, Construction*

Babij, Tadeusz, Ph.D. *(Technical University, Wroclaw, Poland), Associate Professor, Electrical Engineering*

Bassett, William, M.E. *(Florida International University), Assistant Professor, Construction*

Canaves, Jaime, M.A., R.A. *(University of Florida), Associate Professor, Construction*

Cantillo, Adriana Y. Ph.D. *(University of Maryland), Coordinator, STAC*

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Cereijo, Manuel R., D.Sc., P.E., D.Sc., *(Universidad Central), MSEE (Georgia Institute of Technology), Professor, Electrical Engineering, and Associate Dean*

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Surti, Vasant H., Ph.D. P.E. *(Catholic University of America), Professor, Civil and Environmental Engineering*

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Tall, Lambert, Ph.D., P.E. *(Lehigh University), Professor, Civil and Environmental Engineering*

Thompson, LeRoy E., Ph.D., P.E. *(Rice University), Professor, Civil and Environmental Engineering*

Torres, Milton, M.A.E. *(University of Oklahoma), Lecturer, Industrial Engineering*

Ural, Oktay, Ph.D., P.E. *(North Carolina State University), Director, International Association for Housing Science and Professor, Civil and Environmental Engineering*

Villate, Jose T., Ph.D., P.E. *(University of Wisconsin), Professor, Civil and Environmental Engineering*

Wang, Ton-Lo Tony, Ph.D. *(Illinois Institute of Technology), Assistant Professor, Civil and Environmental Engineering*

Wu, Kuang-Hai, Ph.D. P.E. *(University of Illinois), Assistant Professor, Mechanical Engineering*

Yen, Kang K., Ph.D. *(Vanderbilt University), Assistant Professor, Electrical Engineering*

Yih, Tachung, Ph.D. *(Catholic University of America) Assistant Professor, Mechanical Engineering*

School of Health Sciences

School of Health Sciences

The School of Health Sciences offers programs of professional study in the health professions and promotes articulation between the academic units and clinical, experiential settings. Approximately 300 different clinical centers are utilized in the various degree programs. The academic departments of the School offer courses of study leading to a baccalaureate degree in Dietetics and Nutrition, Medical Laboratory Science, Occupational Therapy, Physical Therapy and Prosthetics and Orthotics. Master's degrees are offered in Dietetics and Nutrition, Medical Laboratory Science, and Occupational Therapy. All degree programs are fully accredited by their respective professional accrediting body.

Applicants to the School must submit an Application for Admission to the University and must follow regular University procedures. Applicants must be eligible for admission to the University before being admitted to any degree program. Students interested in admission to any department or program in the School should contact the unit for specific prerequisites and admission requirements. Specialized admission procedures are required for the Dietetics Coordinated Undergraduate Program, Medical Laboratory Science, Occupational Therapy, Physical Therapy, and Prosthetics and Orthotics programs.

The School offers a Health Sciences Recruitment and Retention Program aimed at increasing the number of minorities in the health professions. This program offers orientation, peer tutoring, and counseling services to interested minority applicants and students enrolled in a Health Science major. Note: The programs, policies, requirements and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics, and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Dietetics and Nutrition

Nancy S. Wellman, *Associate Professor and Chairperson*
Katharine R. Curry, *Professor*
Penelope S. Easton, *Professor Emeritus*
Evelyn B. Enrione, *Assistant Professor*
Susan P. Himburg, *Associate Professor and Director, Coordinated Undergraduate Program*
June G. Wolgemuth, *Assistant Professor*

The Department offers a major leading to a baccalaureate degree in dietetics and nutrition, and courses in nutrition for interested students. The Department offers a Master of Science degree in dietetics and nutrition with areas of concentration in clinical and community dietetics or dietetic management. The undergraduate programs are designed to assist the student to gain basic practitioner knowledge and skills. The graduate program prepares the student to assume leadership responsibilities in health care institutions, community health agencies, or private practice. The graduate program allows for concentration in research or field application.

Undergraduate Programs

Degree: **Bachelor of Science**

Coordinated Undergraduate Program

The Coordinated Undergraduate Program meets both academic and experience requirements of the American Dietetic Association for active membership.

The University student must make formal application to the Department for the clinical portion of the program by March 1 before Fall admission to the junior year. This special application form can be obtained from the Department. Students must enroll in DIE 3005-Orientation to Dietetics the summer prior to Fall admission. Clinical courses are sequential and require two years to complete. Clinical experiences are available in several hospitals and other health agencies. Students must satisfactorily complete a written comprehensive exam to graduate from the program.

Students must receive a grade of 'C' or higher in all courses in the department.

Lower Division Preparation

Students desiring to major in general dietetics and nutrition need the following FIU course equivalents in addition to completing the general education requirements:

APB 2170	Introductory Microbiology	3
APB 2170L	Introductory Microbiology Lab	1
CHM 1045	General Chemistry I	4
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CHM 3210	Organic Chemistry I	4
CHM 3210	Organic Chemistry I Lab	1
CHM 3211	Organic Chemistry II	3
CHM 3211L	Organic Chemistry II Lab	1
or		
CHM 3200	Survey of Organic Chemistry	3
CHM 3200L	Survey of Organic Chemistry Lab	1
ECO 2013	Macro Principles	3
FOS 3021	Fundamentals of Food	2
FOS 3021L	Fundamentals of Food Lab	1
HUN 3201	Principles of Nutrition	3
MAN 3025	Organization and Management	1
PSY 2020	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3

FIU undergraduates must have met all lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Required Courses:

Junior Year

Summer Semester

DIE 3005	Orientation to Clinical Dietetics[1]	2

Fall Semester

HUN 4403	Life Cycle Nutrition	3
DIE 3317	Dietetics in Community Health	3
DIE 3355	Dietetics in Community Health Practicum[1]	4
FSS 3316	Food Science for Institutions	3
PCB 3702	Intermediate Physiology	3

Spring Semester

DIE 3125	Management of Dietary Systems	3
DIE 3175	Management of Dietary Systems Practicum[1]	6
DIE 3244	Diet Therapy I	3
DIE 3244L	Applied Diet Therapy	2
FOS 4041	Food Science	3
FOS 4041L	Food Science Lab	1

Summer Semester

HUN 4241	Nutrition II	3
BCH 3033	Introductory Biochemistry	3

Senior Year

Fall Semester

DIE 4246	Diet Therapy II	3
DIE 4277	Diet Therapy II Practicum[1]	6
DIE 4365	Dietetic Management of Nutrition Programs	3
DIE 4377	Applied Dietetic Management of Nutrition Programs	2
DIE 4435	Dietetic Instruction and Counseling	3
DIE 4435L	Dietetic Instruction and Counseling Lab	1

Spring Semester

DIE 4536	Advanced Clinical Practicum[1]	15
DIE 4506	Seminar in Dietetics and Nutrition	3

[1] These courses are open only to students in the Coordinated Undergraduate Program, must be taken concurrently with the related dietetic courses, and must be taken in the order listed. Clinical experiences are supervised by the course instructors and are located in hospitals, health agencies, and school food service programs.

Traditional Degree Program

This program meets the academic requirements for membership in the American Dietetic Association. Students in this program must complete the same lower division requirements as stated for the Coordinated Undergraduate Program.

Upon completion of this program, students may apply to an accredited dietetic internship to obtain the professional experience required to become eligible for the Registration Examination of the American Dietetic Association.

Both approved emphases, general and management award Bachelor of Science degrees. Students must obtain a grade of 'C' in all courses in the department.

To be admitted into the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

General Emphasis
Upper Division Program

Required Courses:

DIE 3005	Orientation to Dietetics	2
DIE 3125	Management of Dietary Systems	3
DIE 3244	Diet Therapy I	3
DIE 3244L	Diet Therapy	2
DIE 3317	Dietetics in Community Health	3
DIE 4246	Diet Therapy II	3
DIE 4365	Management of Nutrition Programs	3
DIE 4377	Applied Dietetic Management of Nutrition Programs	2
DIE 4435	Dietetic Instruction and Counseling	3
DIE 4435L	Dietetic Instruction and Counseling Lab	1
DIE 4506	Senior Seminar	3
HUN 4241	Nutrition II	3
HUN 4403	Life Cycle Nutrition	3
FOS 4041	Food Science	3
FOS 4041L	Food Science Lab	1
FSS 3316	Food Science for Institutions	3
BCH 3033	General Biochemistry	4
PCB 3702	Intermediate Human Physiology	3

Recommended Electives: Selected courses in areas: computer science, education, statistics, social work, health science, adult education, business, anthropology, sociology.

Management Emphasis
Upper Division Program

Required Courses:

DIE 3005	Orientation to Dietetics	2
DIE 3317	Dietetics in Community Health	3
DIE 3125	Management of Dietary Systems	3
DIE 3244	Diet Therapy I	3
DIE 3244L	Applied Diet Therapy	2
DIE 4365	Management of Nutrition Programs	3
DIE 4377	Applied Dietetic Management of Nutrition Programs	2
DIE 4435	Dietetic Instruction and Counseling	3
DIE 4435L	Dietetic Instruction and Counseling Lab	1
DIE 4506	Senior Seminar	3
HUN 4403	Life Cycle Nutrition	3
FOS 4041	Food Science	3
FOS 4041L	Food Science Lab	1
FSS 3316	Food Science for Institutions	3
ACG 3021	Accounting for Decisions	3
CGS 3061	Introduction to Computers and Computer Applications	3
COP 2172	Programming in Basic	3
ECP 4203	Introduction to Labor Economics	3
FIN 3403	Financial Management	3
MAN 3013	Statistics for Social Sciences	3
MAN 4151	Behavioral Science in Management	3
MAN 4301	Personnel Management	3
MAN 4410	Labor, Management, and Collective Bargaining	3
PCB 3702	Intermediate Human Physiology	3

Recommended Electives:

BCH 3033	Introductory Biochemistry	3
DIE 4246	Diet Therapy II	3
FSS 4431	Food Facility Layout and Design	3
FSS 4614	Food and Beverage Purchasing	3
HFT 3263	Restaurant Management	3
HUN 4241	Nutrition II	3
MAN 4142	Managerial Decision Styles	3
MAN 4201	Organization Theory	3
MAN 4102	Women in Management of Business Organizations	3

Minor in Nutrition

A twelve credit nutrition course sequence at the undergraduate level affords students the opportunity to study food and nutrients, their physiological functions, normal nutritional requirements, socio-economic influences on food choices and other aspects of food technology. The required science foundation courses provide the necessary background of chemistry and biological sciences to understand the physiological and biochemical basis of nutrition, as a multi-disciplinary science with relevance to health. Students minoring in nutrition learn to interpret nutrition research and contemporary claims and theories as a basis for improving food habits.

Minor Requirements:

HUN 3201	Principles of Nutrition	3
HUN 4403	Life Cycle Nutrition	3
HUN 4241	Nutrition II[1]	3

[1] Prerequisite: Human Physiology, Organic Chemistry; corequisite: Biochemistry

In addition one of the following courses:

HUN 3191	World Prospects and Issues: Nutrition	3
FOS 3021	Fundamentals of Food	2
FOS 3021L	Fundamentals of Food Lab	1
FOS 3004	Food and the Consumer	4
FSS 3215	Meal Management	3
FOS 4041 & FOS 4041L	Food Science[1]	4

[1] Prerequisite: FOS 3021, FOS 3021L, and HUN 3201

Graduate Programs

Admission to a graduate program requires completion of The American Dietetic Association (ADA) academic requirements. Interested students with undergraduate degrees in related fields may be eligible for enrollment upon completion of graduate course prerequisites. All students must complete ADA academic requirements prior to completion of their graduate degree. An appointment should be made to discuss exceptions and unusual circumstances whereby several graduate courses may count doubly in meeting graduate degree requirements and ADA academic requirements.

Minimum entrance requirements under current Board of Regents policy must be met. This includes a combined score of 1000 on the Verbal and Quantitative Aptitude Tests of the Graduate Record Examination or at least a 'B' (3.0) average in all upper division work. Application procedures for admission to the program are in the discussion of University procedure for admission to graduate study. A personal interview or suitable letters of reference are required for admission.

The Department offers a graduate program leading to the Master of Science degree in Dietetics and Nutrition, with a concentration in either Clinical and Community Dietetics or Dietetic Management. The program is designed to meet the needs of the professional practitioner. Graduate assistantships are available.

The Clinical and Community Dietetic track allows concentration in nutrition research or applied nutrition. Students may prepare themselves for positions of responsibility in nutritional care administration, community health agencies, or private practice. The Dietetic Management track builds on the food service systems background to broaden management skills and expertise. Several advanced courses in the School of Hospitality Management and the College of Business Administration are recommended in the program of study. Graduates may assume directorships of Nutrition, Food and Dietetic Services Departments.

Students who are candidates for the Master of Science degree in Dietetics and Nutrition must complete a minimum of 37 semester hours of graduate study, including at least 30 hours at this University. All coursework must be recent enough to be relevant to the field of nutrition today.

An Advanced Practicum option is available which meets professional experience requirements of The American Dietetic Association (ADA). Limited enrollment for these additional nine semester hours is contingent upon Departmental and prior ADA approval.

Students' programs will be planned to support their career goals in consultation with the assigned faculty advisor. The proposed program of study will be filed in the office of the Chairperson of the Department of Dietetics and Nutrition by the end of the student's first semester of full-time study. Retention in the Master of Science in Dietetics and Nutrition program requires maintenance of a 3.0 GPA. Successful completion of the program requires oral and written examinations for students choosing the non-thesis option.

Degree: **Master of Science in Dietetics and Nutrition**
Course Requirements:

Required Research Core: (13-16 semester hours)

DIE 6568	Research Methods in Dietetics	3
DIE 6578	Field Research Methods	
or		
HUN 6558	Laboratory Research Methods	2
DIE 6937	Graduate Seminar in Dietetics	1,1
STA 5166	Statistical Methods in Research	3
DIE 6971	Thesis in Dietetics	6
or		
DIE 6908	Supervised Field Study in Dietetics	3

Scientific Knowledge (3 semester hours)

HUN 5245	Nutrition and Biochemistry [1]	
or		
HUN 6247	Nutritional Pathophysiology	3
FOS 6044	Advanced Food Science[2]	3

Or Recommended Electives

Application to Discipline (6-12 semester hours)

DIE 6368	Advanced Techniques in Dietetic Practice[1,2]	2
DIE 6369L	Advanced Techniques in Dietetic Practice Lab[1,2]	1
DIE 5247	Diet in Disease Prevention and Treatment[1]	
or		
DIE 6593	Special Topics in Dietetics	3
DIE 6128	Advanced Management of Dietary Systems[2]	3
HUN 6521	Advanced Community Nutrition[1]	
or		
HUN 6408	Advanced Life Cycle Nutrition	3
HUN 5123	Ethnic Foods and Nutrition	3
HUN 5611	Nutrition Education in the Community	3
HUN 5621	Food, Nutrition and Communication	3

Or Recommended Electives

[1] Required for Clinical/Community Track
[2] Required for Administrative Track

Degree: **Master of Public Health**
An MPH degree is offered by the Department of Health Services Administration, School of Public Affairs and Services, with a concentration in Nutrition in conjunction with the Department of Dietetics and Nutrition. The goal of this degree program is to prepare the public health nutritionist to take a leadership role on the public health management team and to become an expert technical resource person.

The specialty concentration in Nutrition is designed to provide a background in the science and practice of public health including program planning, management, and evaluation; human nutrition and food science and their relationships to health; and a working knowledge of public health nutrition programs and services.

The MPH Nutrition concentration requires 45 hours of graduate coursework including:

Public Health core curriculum	15-18
Nutrition required courses	15-18
Nutrition electives	3-6
Field experience	3
Field research project	3

Pursuit of this degree requires class attendance on both University campuses. For non-Registered Dietitians, community field experience incorporated into this graduate program is designed to meet ADA requirements. Field experiences require transportation availability. Prospective students should contact both departments.

Course Descriptions

Definition of Prefixes

DIE—Dietetics; FOS—Food Science; FSS—Food Service Systems; HUN—Human Nutrition

DIE 3005 Orientation to Dietetics (2). Survey of role and responsibilities of the dietitian. Legal and ethical considerations necessary for the student dietitian in clinical experiences. Educational and personal qualifications for specialization in dietetics. Prerequisite: Application to the Coordinated Undergraduate Program or Plan IV Program.

DIE 3125 Management of Dietary Systems (3). Survey of various types of institutional food service systems; management concepts in planning, implementing, and evaluating food service systems. Prerequisites: Basic Management, Quantity Food Preparation.

DIE 3175 Management of Dietary Systems Practicum (6). Developing skills for DIE 3125. Clinical assignments in several food service institutions in this area. Clinical component: open only to students in the Coordinated Undergraduate Program. Prerequisite: DIE 3355.

DIE 3244 Diet Therapy I (3). Techniques of adjusting nutrients and food intake to accommodate medical treatments and previous nutriture. Menu writing and analysis, translation of dietary prescriptions, techniques of dietary instruction, dietary histories. Prerequisites: HUN 3201, DIE 3317, HUN 4403, Physiology.

DIE 3244L Applied Diet Therapy (2). Observation and participation in dietary treatment activities in clinical institutions and simulated settings; application of menu writing, techniques of diet history and instruction. Corequisite: DIE 3244.

DIE 3317 Dietetics in Community Health (3). Study of community agencies providing nutrition guidance for differing age groups. Emphasis on nutritional and educational needs of clients. Prerequisites: HUN 3201, DIE 3005. Prerequisite or Corequisite: HUN 4403.

DIE 3355 Dietetics in Community Health Practicum (4). Observation and participation in activities of community agencies. Nutrition education and counseling experiences. Clinical component: Open only to students in the Coordinated Undergraduate Program. Corequisite: DIE 3317.

DIE 4195 Special Problems in Dietetic Administration (1-3). In-depth study of a problem in dietetic administration chosen to coincide with a student's interest and career goals. Student will develop objectives stated in behavioral terms and demonstrate skills in information gathering, analysis, and technical writing. Prerequisite: Permission of instructor.

DIE 4246 Diet Therapy II (3). Study of the complex dietetic problems accompanying metabolic disorders. Determination of nutrient requirements based on medical and individual needs. Prerequisites: DIE 3244, DIE 3244L.

DIE 4277 Diet Therapy II Practicum (6). Participation in activities in clinical affiliations focusing on nutritional assessment, planning, treatment and follow-up of patients. Clinical component: open only to students in the Coordinated Undergraduate Program. Corequisite: DIE 4246.

DIE 4296 Special Problems in General Dietetics (1- 3). In-depth study of a problem chosen to coincide with student's interest and career goals. Student develops behavioral objectives and demonstrates skills in information gathering, analysis and technical writing. Prerequisite: Permission of instructor.

DIE 4365 Dietetic Management of Nutrition Programs (3). Advanced concepts of managerial functions as an institutional consultant, a member of a community nutrition program, a private therapeutic consultant, full time institutional food service administrator. Advanced standing required. Prerequisites: DIE 3125 or permission of instructor, basic competency in management principles. Corequisite: DIE 4377.

DIE 4377 Applied Dietetic Management of Nutrition Programs (2). Observation and participation in community agencies, institutions, and simulated setting the development of entry level competencies in the management of nutrition and food service programs. Corequisite: DIE 4365.

DIE 4435 Dietetic Instruction and Counseling (3). Motivational methods and instructional techniques for development of entry level competencies. Advanced standing in dietetics required. Pre or corequisite: DIE 3244. Corequisite: DIE 4435L.

DIE 4435L Dietetic Instruction and Counseling Lab (1). Small group video recorded practice in dietetic instruction and counseling. Prerequisite: Advanced standing in dietetics. Corequisite: DIE 4435.

DIE 4506 Seminar in Dietetics and Nutrition (3). Professional skills development for career effectiveness in today's job world; emphasis on speaking and writing related to contemporary nutrition issues. Majors only, senior standing.

DIE 4536 Advanced Clinical Practicum in Dietetics (15). In-depth study combining theoretical concepts and clinical experience. Learning experience planned cooperatively by the student, campus instructor, and clinical instructor to meet student needs and goals. Prerequisites: DIE 4246, DIE 4277, and permission of Director of the Coordinated Undergraduate Program. Clinical component: Open only to students in the Coordinated Undergraduate Program.

DIE 5247 Diet in Disease Prevention and Treatment (3). Critical study-historical, current, and experimental uses of dietary modifications in the prevention and treatment of diseases. Prerequisite: Completion of American Dietetic Association Plan IV.

DIE 5926 Workshop in Dietetics and Nutrition (1- 3). Short term intensive development of selective subject matter in dietetics, nutrition, or nutrition education techniques and methods. Prerequisites vary according to subject.

DIE 5946 Advanced Practicum in Community Nutrition (1-6). Pre-planned clinical experience at the professional level in community nutrition. Prerequisite: Permission of instructor

DIE 5947 Advanced Practicum in Dietetic Administration and Management (1-6). Preplanned clinical experience at the professional level in dietetic administration and management. Prerequisite: Permission of instructor

DIE 5948 Advanced Practicum in Clinical Nutrition (1-6). Pre-planned clinical experience at the professional level in clinical therapeutic nutrition. Prerequisite: Permission of instructor

DIE 6128 Advanced Management of Dietary Systems (3). Application of management and organizational theory to dietetic systems in health and community institutions. Completion of ADA Plan IV (with two management courses) and permission of instructor.

DIE 6368 Advanced Techniques in Dietetic Practice (2). Techniques and approaches in changing nutritional behavior, establishing private practice, providing dietetic services in various size institutions, hospitals, nursing homes, and in the community. Prerequisites: DIE 4435, DIE 4435L or equivalent. Corequisite: DIE 6368

DIE 6369L Advanced Techniques Dietetic Practice Lab (1). Individual practice in conducting interviews, planning nutritional care, changing nutritional behavior, and providing dietetic consultation. Prerequisite: Permission of instructor. Corequisite: DIE 6368.

DIE 6568 Research Methods in Dietetics (3). Consideration of scientific methods and theoretical orientation as applied to research in dietetics. Special consideration given to various techniques of investigation, data collection, data organization, and interpretation. Prerequisites: Admission to graduate program and permission of instructor.

DIE 6578 Field Research Methods in Dietetics (2). Application of field research methods in interpreting and designing research studies. Introduction to interdisciplinary research approaches. Prerequisite: DIE 6568.

DIE 6906 Readings in Dietetics and Nutrition (1- 3). Individual advanced study in a comprehensive overview of dietetics and nutrition or in-depth advanced study of a specialty. Prerequisites: Permission of instructor and advanced standing in graduate program.

DIE 6907 Individual Study in Dietetics (1-3). Intensive individual investigation of a phase of dietetics. Emphasis on recent findings in dietetics and allied disciplines. Prerequisite: Permission of the Chairperson of the Department.

DIE 6908 Supervised Field Study in Dietetics (3). Pre-planned practical experience at the professional level in an area of dietetics. Critical written evaluation by the student, developed with frequent consultation and supervision of instructor. Prerequisites: DIE 6578, 25 hours of graduate study, and permission of instructor.

DIE 6935 Special Topics in Dietetics (3). In-depth study of historical, epidemiological, prevention, and treatment aspects of topics related to dietetics. Prerequisites: ADA Plan IV competence in topic covered, admission to graduate program.

DIE 6937 Graduate Seminar in Dietetics and Nutrition(1). Presentations by researchers, practitioners, and graduate majors related to advances in theories and applications in nutrition and dietetics. Two semester enrollment required of all graduate students.

DIE 6971 Thesis in Dietetics and Nutrition (3-6). Prerequisites: DIE 6578 or HUN 6811, 25 hours of graduate study and permission of Thesis Director.

FOS 3004 Food and the Consumer (3). Study of purchasing, storage, and preparation of food. Consideration of life style influences on food choices. Designed to develop skills in purchasing and preparing foods to meet personal, social, and physical needs. Demonstration laboratory included.

FOS 3021 Fundamentals of Food (3). Study of selection, processing, and preparation of food with attention to quality and nutrient retention. Corequisite: FOS 3021L

FOS 3021L Fundamentals of Food Laboratory (1). Techniques of food preparation to maintain nutrients and food quality. Corequisite: FOS 3021.

FOS 4041 Food Science (3). Physical and chemical changes in food occurring as a result of various methods of processing, preparation, and storage. Prerequisites: Organic Chemistry, HUN 3122 or HUN 3201, FOS 3021, or equivalents. Corequisite: FOS 4041L.

FOS 4041L Food Science Laboratory (1). Experimental laboratory in the physical and chemical characteristics of food. Corequisite: FOS 4041.

FOS 6044 Advanced Food Science (3). In-depth study of the various components of foods and the effect of different methods of processing on their physical and chemical characteristics. Prerequisites: ADA Plan IV and permission of the instructor.

FSS 3215 Meal Management and Service (3). Development of skills in basic techniques of purchasing, preparation, and service of food for individuals and small groups. Includes laboratory and experiences in demonstration techniques. Pre or corequisites: HUN 3122 or HUN 3201, and FOS 3021 or equivalent, or permission of instructor.

FSS 3316 Food Science For Institutions (3). Proper food handling in institutional settings with use of sound management principles closely coordinated with food science advances and government regulations. Laboratory and field trips to strengthen theoretical concepts. Prerequisite: FOS 3021.

HUN 3017 Nutrition for Health Professionals (3). Study of basic nutrients and nutritional interrelationships with emphasis on normal nutritional needs for achieving and maintaining health. No prerequisites.

HUN 3122 Nutrition and Culture (3). Nutrients and their interrelationships to food habits and needs of various population groups. Introduction to the impact of culture in nutriture and study of personal food pattern development. Recommended for non-majors.

HUN 3191 World Prospects/Issues: Nutrition (3). Exploration of food production, distribution, and consumption patterns of selected nations. Analysis of variables affecting nutritional intake and change, and hunger.

HUN 3201 Principles of Nutrition (3). Nutrients and their inter-relationships, requirements of individuals, and food sources. Investigates current controversies, fads/fallacies, and health related issues. Recommended for non-majors.

HUN 3240 Metabolic Aspects of Nutritional Status (3). Nutritional components of food and metabolic aspects of nutrients, interaction of nutrients and their degradation and utilization to meet metabolic demands of the body. Prerequisites: nine semester hours chemistry and HUN 3201, or equivalent.

HUN 4241 Nutrition II (3). Roles of nutrients in metabolic processes. Effects of excesses and deficiencies. Prerequisites: Organic Chemistry, Physiology, and HUN 3201 or equivalent. BCH 3033 pre- or corequisite.

HUN 4403 Life Cycle Nutrition (3). Nutrient requirements, dietary adequacy, food habits, special nutritional concerns during pregnancy, infancy, childhood, adolescence, and adulthood including aging. Prerequisite: HUN 3201 or HUN 3102 or HUN 3017.

HUN 5123 Ethnic Influences on Nutriture and Food Habits (3). Systematic study of food habits of various cultural groups. Emphasis on methodology, analysis of data, relationship of food habits to nutritional standards, and corrective measures. Includes laboratory. Prerequisite: Competency in food preparation and nutrition. Recommended for non-majors.

HUN 5245 Nutrition and Biochemistry (3). Advanced study of the relationship of nutrition and biochemistry with emphasis on digestion, absorption, metabolism of nutrients, and determination of norms. Prerequisites: ADA Plan IV and permission of instructor.

HUN 5295 Contemporary Issues in Food and Nutrition (3). Updating food and nutrition information through the study of current research. Recommended for non-majors.

HUN 5611 Nutrition Education in the Community (3). In-depth study of nutrition education information and methods in the community including the nutrition education component of school food service and other congregate meal programs. Prerequisite: Recent courses in nutrition education or permission of instructor.

HUN 5621 Food, Nutrition and Communication (3). Concepts and techniques for effective professional communication with individuals, groups and other professionals. Emphasis on communication via mass media. Prerequisites: Advanced standing, competency in food and nutrition knowledge.

HUN 6247 Nutritional Pathophysiology (3). Systems of the body in relation to pathological conditions allied to digestion, absorption, metabolism, and other states in which nutrition plays a part in etiology or treatment. Prerequisites: ADA Plan IV and permission of instructor.

HUN 6408 Advanced Life Cycle Nutrition (3). In- depth study of nutrient needs of individuals and groups at different stages of life. Emphasis on nutrient inter-relationships and effects of deficiencies and excesses on metabolism. Prerequisite: HUN 4241 or equivalent.

HUN 6521 Advanced Community Nutrition (3). In- depth study of assessment of nutriture in population groups and needs of public for nutrition information. Emphasis on nutrition consultation for health professionals and dietary care. Prerequisite: DIE 3317 or equivalent.

HUN 6811 Laboratory Research Methods in Dietetics (2). Laboratory application of research methods in dietetics. Prerequisites: DIE 6568 and consent of department chairperson.

Medical Laboratory Sciences

Janet A. Lineback, *Associate Professor and Chairperson*
Barbara V. Anderson, *Assistant Professor*
Eugene E. Keran, *Assistant Professor*
Patrick F. Shen, *Assistant Professor*
Sylvia L. Smith, *Associate Professor*

Medical technologists perform complex biological and chemical analyses on blood and other specimens to enable the physician to diagnose and treat disease. Individuals wishing to pursue a career in medical technology should have a strong science background with emphasis on laboratory analytical skills. They must be reliable, conscientious, interested in helping others, and recognize their responsibility for human lives in the practice of modern medicine. Students receive intensive didactic and laboratory training in the areas of clinical chemistry, hematology, immunohematology, and microbiology. Opportunities for employment exist in hospital, government, and industrial clinical laboratories, academic and industrial research laboratories, and in sales and technical services in clinical diagnostic products industries.

The program is approved by the AMA Committee on Allied Health Education and Accreditation (CAHEA). A graduate of the program is eligible to apply for examination and certification by the American Society of Clinical Pathologists' Board of Registry as a Medical Technologist, MT (ASCP); by the National Certification Agency for Medical Laboratory Personnel as a Clinical Laboratory Scientist, CLS (NCA); and for licensure as a Medical Technologist by the State of Florida. Clinical practice is conducted at Baptist, Cedars, Coral Gables, Mercy, South Miami, and Victoria Hospitals and American Red Cross Blood Services, South Florida Region.

Degree: **Bachelor of Science**

Lower Division Preparation

The student seeking admission to professional MLS courses should have: (1) completed a minimum of 60 semester hours in an accredited two or four-year institution, (2) completed all of the general education requirements, (3) earned a minimum cumulative GPA average of 2.5, (4) earned a minimum cumulative GPA of 2.0 in required science courses, (5) completed the following preparatory courses: two semesters of general biology with laboratory, two semesters of general chemistry with laboratory, two semesters of organic chemistry with laboratory, one semester of quantitative analysis chemistry with laboratory, one semester of general microbiology with laboratory, one semester of pre-calculus mathematics, one semester of computer programming, and one semester of anatomy or physiology, or both, with laboratory. (Survey or introductory courses in science and mathematics are not acceptable.) Credits in general microbiology or biochemistry, or both, which are more than seven years old must be repeated.

FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

The University-integrated '2+2' program has limited enrollment. Students are usually admitted to the program in Fall Semester, but may be admitted on a space-available basis in any semester providing prerequisite and corequisite courses have been completed. It is recommended that applications for Fall Semester be received by April 15 but applications will be processed throughout Summer Semester on a space-available basis. An interview may be required. The medical technology professional courses and hospital clinical practice are open only to majors in the program (or by permission of instructor). Entrance to clinical practice depends upon satisfactory evaluation of the student's record by the faculty. Students must satisfactorily complete a written comprehensive examination to graduate from the program.

Required Courses

Freshman Year

Fall Semester (19 semester hours)

BSC 1010	General Biology I	3
BSC 1010L	General Biology I Lab	2
CHM 1045	General Chemistry	4
CHM 1045L	General Chemistry Lab	1
MAC 2132	Pre-Calculus Math	3
ENC 1101	English Composition	3
Humanities Elective		3

Spring Semester (18 semester hours)

BSC 1011	General Biology II	3
BSC 1011L	General Biology II Lab	2
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
COP 2172	Programming in BASIC	3
ENC 1102	English Composition	3
Social Science Elective		3

Sophomore Year

Fall Semester (20 semester hours)

PCB 3702	Intermediate Human Physiology	3
PCB 3702L	Intermediate Human Physiology Lab	1
or		
ZOO 3731	Human Anatomy	3

ZOO 3731L	Human Anatomy Demonstration	1
CHM 3210	Organic Chemistry I	3
CHM 3210L	Organic Chemistry Lab	2
CHM 3120	Quantitative Analysis	4
CHM 3120L	Quantitative Analysis Lab	1

English Composition - Technical Report Writing Elective	3
Humanities Elective	3

Spring Semester (14 semester hours)

MCB 3023	General Microbiology	3
MCB 3023L	General Microbiology Lab	1
CHM 3211	Organic Chemistry II	3
CHM 3211L	Organic Chemistry II Lab	1

English Composition - Technical Report Writing Elective	3
Social Sciences Elective	3

Junior Year

Fall Semester (16 semester hours)

BCH 3033	General Biochemistry	4
MLS 3030C	Introduction to Medical Technology	1
MLS 3605	Clinical Instrumentation	2
MLS 3605L	Clinical Instrumentation Laboratory	1
MLS 4120	Clinical Microbiology Correlations	1
MLS 4405	Clinical Microbiology	3
MLS 4405L	Clinical Microbiology Laboratory	3

Spring Semester (16 semester hours)

MLS 4140	Clinical Chemistry Correlations	1
MLS 4460C	Advanced Microbiology	3
MLS 4625	Clinical Chemistry Methods	3
MLS 4625L	Clinical Chemistry Laboratory	6
PCB 4233	Immunology	3

Summer Semester (15 semester hours)

MLS 3430	Medical Parasitology	2
MLS 3430L	Medical Parasitology Lab	1
MLS 4110	Clinical Hematology Correlations	1
MLS 4306	Clinical Hematology	3
MLS 4306L	Clinical Hematology Laboratory	3
MLS 4505	Clinical Immunology	1
MLS 4505L	Clinical Immunology Laboratory	2
MLS 4755C	Laboratory Statistics and Quality Control	2

Senior Year

Fall Semester (15 semester hours)

MLS 4032C	Orientation to Clinical Rotation	1
MLS 4130	Immunohematology Correlations	1
MLS 4334	Clinical Coagulation	1
MLS 4334L	Clinical Coagulation Laboratory	1
MLS 4535	Immunohematology	3
MLS 4535L	Immunohematology Laboratory	3
MLS 4630	Advanced Clinical Chemistry	3
MLS 4705	Laboratory Management	1
MLS 4934	Senior Seminar	1

Spring Semester (12 semester hours)

MLS 4820L	Clinical Practice/ Chemistry	3
MLS 4821L	Clinical Practice/ Microbiology	3
MLS 4822L	Clinical Practice/ Hematology	3
MLS 4823L	Clinical Practice/Blood Bank and Immunology	3

Minor in Medical Laboratory Sciences

The minor program is aimed at biological and chemical sciences majors who wish to develop expertise in a related area of medical laboratory sciences, and who may wish to seek hospital or clinical diagnostics and industrial employment after graduation. The minor requires 14-21 semester hours in MLS depending on specialization area. Contact the department for details.

Graduate Program

Degree: **Master of Science in Medical Laboratory Science**

Admission to the Master of Science degree program in Medical Laboratory Sciences represents a judgement as to the probability of the student's success in graduate work. This judgement is usually based on a variety of factors including the student's undergraduate academic record, specific admission test scores, letters of recommendation, and letter of intent. To be admitted, a student must meet the following minimum requirements:

1. Satisfactorily meet the University's general requirements for admission. (Consult the General Information section for details).
2. Hold a bachelor's degree, or equivalent, in medical technology or related scientific discipline from an accredited institution. Students entering the program should have completed a minimum of two years of chemistry, one year of mathematics including statistics, two years of biology including immunology and biochemistry. A minimum of 12 semester hours of undergraduate clinical coursework in one of the specialty areas is also required for individuals who do not possess a bachelor's degree in medical technology. An applicant lacking in course background may be admitted with deficiencies on condition that these deficiencies be made up within one year of the date of admission. Credits earned in making up these deficiencies will not count toward the graduate degree.
3. Have a minimum cumulative GPA of 3.0 during the last two years of the undergraduate program or a minimum combined score of 1000 on the quantitative and verbal portions of the Graduate Record Examination (GRE) (or a minimum combined score of 1500 on the three-part GRE).
4. Submit at least two letters of recommendation from academic professors, supervisors/ employers and /or professional associates who are in a position to comment on the applicant's potential for graduate work.
5. Submit an autobiographical statement or letter of intent (not to exceed 1000 words) which includes educational goals and career projections. Applicants may also include copies of previous written scientific work.
6. Students whose native language is other than English must demonstrate an adequate level of proficiency in English as judged by a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). Foreign students who have not met this requirement may be conditionally admitted and allowed to enroll in an intensive English language program prior to beginning coursework in medical laboratory sciences. Satisfactory English proficiency must be demonstrated within the first year of study.
7. Approval from the Departmental Graduate Committee.

Degree Requirements

The Master of Science in Medical Laboratory Sciences consists of a minimum of 37 credits, including a thesis based upon the student's original research. A maximum of six credits of graduate coursework may be transferred from other institutions subject to approval of the Graduate Committee. It is expected that a full-time student taking nine credits per semester should be able to complete the program in two years.

Core Courses	12
Specialty Courses	9
Electives	6
Graduate Seminars	4
Thesis	6

Core Courses

MLS 5175	Advanced Clinical Pathology	3
MLS 5515	Advanced Diagnostic Immunology	3
MLS 5615	Research Instrumentation and Techniques in Medical Laboratory Sciences	3
MLS 5785	Research Methods in Medical Laboratory Sciences	3

Specialty Courses: Clinical Chemistry

MLS 6645	Advanced Clinical Analytical Systems	3
MLS 6665	Clinical Endocrinology	3
MLS 6675	Clinical Protein Chemistry	3
MLS 6685	Therapeutic Drug Monitoring and CLinical Toxicology	3

Specialty Courses: Hematology

MLS 6328	Diagnostic Hematological Cytology and Cytochemistry	3
MLS 6329	Hematological Oncology	3
MLS 6345	Advanced Hematology/ Hemostasis	3

Specialty Courses: Immunohematology

MLS 6575	Advanced Blood Banking	3
MLS 6595	Advanced Immunohematology	3
MLS 6590	Human Blood Group Systems	3
MLS 6944, 6945, 6946	Advanced Blood Banking Practicum I, II, III	3
MLS 6585	Human Histocompatibility Antigens	3

Specialty Courses: Clinical Immunology

MLS 6180	Immunopathology	3

Specialty Courses: Clinical Microbiology

MLS 6425	Advanced Clinical Mycology	3
MLS 6468	Molecular Mechanisms of Infectious Diseases	3
MLS 6475	Medical Virology	3

Electives

In consultation with the advisor, the student may select a maximum of six credits outside the Department of Medical Laboratory Sciences which are not limited to but may include courses in biological sciences, chemistry, health care administration, educational methodology, computer sciences, and business administration.

Course Descriptions

Definition of Prefixes

MLS\Medical Laboratory Science

MLS 3030C Introduction to Medical Technology (1). Introduction the profession of medical technology, history, employment opportunities. Instruction in blood collection techniques. Medical Terminology Certification and licensure requirements.

MLS 3220 Clinical Microscopy (1). Introduction to the structure and physiology of the kidney, CSF and other biological fluids. The clinical significance of various findings in the urine CSF, and other biological fluids are discussed. Prerequisite: MLS 4306 or permission of the instructor. Corequisite: MLS 3220L.

MLS 3220L Clinical Microscopy Laboratory (2). Laboratory to accompany MLS 3220, dealing with routine procedures for urinalysis, microscopic examination of urine, semen, CSF, and other biological fluids. Corequisite: MLS 3220.

MLS 3240L Medical Mycology Laboratory (1). Laboratory to accompany MLS 5425.

MLS 3430 Medical Parasitology (2). Classification, morphology, and life cycles of medically significant parasites. Emphasis is on microscopic identification, specimen preservation, and infection control. Prerequisite: General Biology with Laboratory.

MLS 3430L Medical Parasitology Laboratory (1). Laboratory to accompany MLS 3430.

MLS 3605 Clinical Instrumentation (3). Fundamentals of clinical laboratory instrumentation including basics of electricity and electronics, preventive maintenance, and quality control procedures will be emphasized. Prerequisites: CHM 3120 and CHM 3120L or equivalent.

MLS 3605L Clinical Instrumentation (1). Laboratory to accompany MLS 3605. Introduction to the operation, applications, and preventive maintenance of clinical laboratory instruments. Quality control procedures. Corequisite: MLS 3605.

MLS 3700 Management Procedures for Laboratory Employees (1). Job descriptions, salary schedules, equipment and reagent purchasing, quality assurance programs, work-load recording methods. Individualized projects adapted to meet the needs of facility where student is employed. Prerequisite: One year of clinical laboratory experience.

MLS 3750 Laboratory Quality Control, Safety, and Instrument Maintenance (3). Course designed for the working technologist who wishes to protect himself, his co-workers, and others in his environment from the hazards inherent in laboratory operations, and who wishes to present better evidence of compliance with the various inspection and accreditation organizations which now inspect laboratories. Prerequisite: One year of clinical laboratory experience.

MLS 4032C Orientation to Clinical Rotation (1). Introduction to hospital environment and patient care. Medical ethics. Clinical facilities tour. Seniors only.

MLS 4110 Hematology Correlations (1). Diseases associated with abnormal findings in laboratory tests performed in hematology, urinalysis, and clinical microscopy.

MLS 4120 Microbiology Correlations (1). Mechanisms of microbial infection. Host defense mechanisms. Disease symptoms and treatment. Problems in chemotherapy. Hospital isolation procedures.

MLS 4130 Immunohematology Correlations (1). Problems in compatibility testing, blood component therapy, syphilis, hepatitis, and HLA testing.

MLS 4140 Clinical Chemistry Correlations (1). Interpretation of biochemical tests used in the diagnosis and treatment of disease.

MLS 4150 Selected Topics in Clinical Correlations (1). Current topics in Clinical Correlations of particular significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4160L Individualized Study in Clinical Correlations (VAR). Introduction to problems in Clinical Correlations requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.

MLS 4190 Diagnostic Histology (1). Control slides; special stains; preparation of tissues for EM; identification of significant tissue features for preparation of surgical slides. For experienced histotechnologists.

MLS 4306 Clinical Hematology (3). A basic course in the origin of erythrocytes and white blood cells, their morphology and function. Prerequisite: BCH 3033 or permission of instructor.

MLS 4306L Clinical Hematology Laboratory (3). Laboratory to accompany MLS 4306, dealing with manual and automated procedures for determining complete blood and platelet counts. Urinalysis and clinical microscopy.

MLS 4307L Directed Study in Hematology (VAR). Selected techniques to accompany MLS 4306. For M.L.T's.

MLS 4320C Advanced Hematology (2). Study of abnormal blood present in peripheral smear and bone marrow. Special tests performed in hematology and coagulation. Hematology automation. Lectures and laboratory.

MLS 4325 Selected Topics in Hematology (1). Current topics in Hematology of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4327L Individualized Study in Hematology (VAR). a hospital Introduction to problems in Hematology requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.

MLS 4334 Clinical Coagulation (1). A basic course in the study of study coagulation factors, platelets, the fibrinolytic system, platelet aggregation. Prerequisite: MLS 4306 or permission of instructor.

MLS 4334L Clinical Coagulation Laboratory (1). Laboratory to in a accompany MLS 4334, dealing with manual and automated procedures for determining coagulation factor deficiencies and platelet function.

MLS 4405 Clinical Microbiology (3). Diagnostic microbiological procedures. Study of clinically significant organisms. Isolation media and biochemical tests for identification. Recognition of normal flora. Anaerobic procedures. Mycology. Serological typing. Antibiotic sensitivity tests. Prerequisite: MCB 3023 and MCB 3023L or equivalent. Corequisite: BCH 3033.

MLS 4405L Clinical Microbiology Laboratory (3). Laboratory to accompany MLS 4405. Isolation and identification of normal and pathogenic flora from genuine and simulated clinical specimens. Identification of clinically significant fungi.

MLS 4406L Directed Study in Clinical Microbiology (VAR). Selected laboratory techniques to accompany MLS 4405. For M.L.T's.

MLS 4460C Advanced Microbiology (3). Lectures and laboratory. Identification of rare pathogens including Chlamydia and Rickettsia. Virology tissue culture techniques. Mode of action and bacterial resistance to antibiotics.Prerequisites: MLS 4405 and BCH 3033 or permission of instructor.

MLS 4465 Selected Topics in Microbiology (3). Current topics in Microbiology of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4467L Individualized Study in Clinical Microbiology (VAR). Introduction to problems in Clinical Microbiology requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.

MLS 4505 Clinical Immunology (1). Study of immunological (3). procedures employed by the clinical laboratory for the diagnosis of diseases such as rheumatoid arthritis, infectious mononucleosis, syphilis. Pre or Corequisite: PCB 3233.

MLS 4505L Clinical Immunology Laboratory (2). Diagnostic procedures and techniques performed in a clinical immunology laboratory such as precipitation, agglutination, syphilis serology and other immunoassays. Laboratory to accompany MLS 4505.

MLS 4535 Immunohematology (3). Fundamentals of Blood (3). Banking including blood grouping, compatibility testing, antibody identification, blood group systems, hemolytic disease of the newborn, and blood components. Prerequisites: PCB 3233, MLS 4505, and MLS 4505L.

MLS 4535L Immunohematology Laboratory (3). Laboratory to accompany MLS 4535.

MLS 4536L Directed Study in Immunohematology (VAR). course Selected laboratory techniques to accompany MLS 4535. For M.L.T's.

MLS 4550C Advanced Immunohematology (1). In depth study of Transfusion Therapy, the use and preparation of blood components, and special problems in blood banking. Lectures and laboratory. Prerequisite: MLS 4535.

MLS 4551L Individualized Study in Immunohematology (VAR). Introduction to problems in Blood Banking requiring research or independent study. Special work, lecture and/or laboratory as determined by advisor in accord with student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.

MLS 4555 Selected Topics in Immunohematology (3). Current topics in Blood Banking of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4625 Clinical Chemistry Methods (3). Medical laboratory of procedures for analysis of carbohydrates, proteins, lipids, enzymes, electrolytes. Renal and liver function profiles. Basic instrumentation. Automated analysis with emphasis on continuous flow. Quality control. Prerequisites: MLS 3605, MLS 3605L, and BCH 3033.

MLS 4625L Clinical Chemistry Laboratory (6). Laboratory to accompany MLS 4625.

MLS 4626L Directed Study in Clinical Chemistry (2). Selected the laboratory techniques to accompany MLS 4625. For M.L.T's.

MLS 4630 Advanced Chemistry (3). Analysis of thyroid hormones, estrogens, adrenal hormones and metabolites, immunoassay, radioisotope measurement, amniotic fluid analysis, toxicology, multichannel analyzers, and chromatographic methods. Prerequisite: MLS 4625.

MLS 4630L Advanced Chemistry Laboratory (2). Elective topics in laboratory to accompany MLS 4630.

MLS 4635 Selected Topics in Clinical Chemistry (3). Current topics in Clinical Chemistry of particular clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4637L Individualized Study in Clinical Chemistry (VAR). Introduction to problems in Clinical Chemistry requiring research or independent study. Special work, laboratory and/or lecture as determined by advisor in accord with the student's individual interest. Review of literature. Participation in seminars. Prerequisite: Permission of instructor.

MLS 4705 Laboratory Management (1). Personnel handling, laboratory records, equipment and reagent purchasing, laboratory computerization, quality assurance programs, workload recording programs, scheduling and methods of laboratory self-evaluation. Seniors only.

MLS 4755C Laboratory Statistics and Quality Control (2). Lecture topics to be covered include basic laboratory statistics, linear regression and correlation analysis, quality control charting techniques, new method evaluation, problem solving using computer programs. Seniors only.

MLS 4820L Clinical Practice Chemistry (3). Practical experience in chemistry laboratory. All MLS courses must be completed before students will be permitted to register for clinical practice.

MLS 4821L Clinical Practice Microbiology (3). Practical course experience in a hospital microbiology laboratory.

MLS 4822L Clinical Practice Hematology (3). Practical experience hospital hematology laboratory.

MLS 4823L Clinical Practice Blood Bank and Immunology (3). Practical experience in a hospital blood bank and immunology laboratory.

MLS 4934, Senior Seminar (1). Preparation and presentation of literature review and individualized projects. Instructional methods.

MLS 5175 Advanced Clinical Pathology (3). Advanced study of to pathological conditions affecting the major organ systems with emphasis on clinical diagnosis using laboratory methods. Prerequisite: Graduate standing or permission of instructor.

MLS 5425 Medical Mycology (3). Study of the essential and procedures and criteria in the identification of pathogenic fungi. Recognition of fungal contaminants commonly encountered in clinical specimens. Actinomycetes. Antimycotic agents. Mycoserology. Stains, reagents, and media.

MLS 5515 Advanced Diagnostic Immunology (3). A course describing the principles, performance, quality control and applications of immunological methods used in clinical laboratories and research. Prerequisite: Graduate standing or permission of instructor.

MLS 5615 Research Instrumentation and Techniques (3). This course is designed to introduce the beginning graduate student to research instrumentation and techniques in the specialized areas of the medical laboratory sciences. Prerequisite: Graduate standing or permission of instructor.

MLS 5785 Research Methods in Medical Laboratory Sciences (3). Introduction to clinical and industrial research methods/experimental designs. Analysis of scientific literature. Review of statistical analysis of data. Prerequisite: Graduate standing or permission of instructor.

MLS 6180 Immunopathology (3). The student will study the pathology of immunological processes occurring naturally and /or under disease conditions. Prerequisite: Graduate standing or permission of instructor.

MLS 6328 Diagnostic Hematological Cytology/Cytochemistry (3). Morphological, cytochemical, cytogenetic and immunological techniques for precise and accurate blood cell identification that provide invaluable information for diagnosis, treatment and prognosis. Prerequisite: Graduate standing or permission of instructor.

MLS 6329 Hematology Oncology (3). A detailed study of MLS hematological neoplasms, in which the etiology, pathophysiology, clinical and laboratory diagnosis of leukemias, lymphomas and other malignant diseases will be considered. Prerequisite: Graduate standing or permission of instructor.

MLS 6345 Advanced Hematology/Hemostasis (3). An advanced course dealing with a number of selected topics of current interest in clinical hematology/hemostasis. Emphasis will be placed on erythrocyte disorders and blood coagulation. Prerequisite: Graduate standing or permission of instructor.

MLS 6425 Advanced Clinical Mycology (3). Study of fungi which cause disease in man and animals. Application of genetic, biochemical and ultrastructural procedures in the identification of fungi including the use of monoclonal antibodies. Prerequisite: Graduate standing or permission of instructor.

MLS 6468 Molecular Mechanisms of Infectious Disease (3). Study of molecular mechanisms of microbial pathogenicity as it relates to human infections. Examination of the processes by which infection leads to disease. Disease prevention. Prerequisite: Graduate standing or permission of instructor.

MLS 6475 Medical Virology (3). The nature of viruses and viral disease. Types of human viral infections, their detection and prevention. Current diagnostic procedures. Prerequisite: Graduate standing or permission of instructor.

MLS 6575 Advanced Blood Banking (3). A comprehensive study of the techniques and methods used to acquire, prepare, store, test and transfuse blood and its components. Prerequisite: Graduate standing or permission of instructor.

MLS 6585 Human Histocompatibility Antigens (3). A comprehensive study of the serology, clinical relevance, immunology and genetics of the human histocompatibility antigens. Prerequisite: Graduate standing or permission of instructor.

MLS 6590 Human Blood Group Systems (3). An indepth study of serology, clinical relevance, immunology, genetics and the biochemistry of the human red cell, white cell and platelet antigens and antibodies. Prerequisite: Graduate standing or permission of instructor.

MLS 6595 Advanced Immunohematology (3). A comprehensive study of antigen-antibody reactions and analogous phenomena as they relate to the pathogenesis and clinical manifestations of blood disorders. Prerequisite: Graduate standing or permission of instructor.

MLS 6645 Advanced Clinical Analytical Systems (3). Current analytical concepts and analytical systems in clinical chemistry. Solid phase technology. Ion-specific electrodes. Centrifugal analyzers. Fluorescence polarization. Robotics. Prerequisite: Graduate standing or permission of instructor.

MLS 6665 Clinical Endocrinology (3). Lectures dealing with the anatomy, physiology and biochemistry of endocrine diseases. Laboratory testing procedures and approaches, clinical significance and interpretation of laboratory data. Prerequisite: Graduate standing or permission of instructor.

MLS 6675 Clinical Protein Chemistry (3). Lectures dealing with isolation and identification of clinically significant proteins and enzymes. Pathological conditions and interpretation of laboratory data. Prerequisite: Graduate standing or permission of instructor.

MLS 6685 Therapeutic Drug Monitoring and Clinical Toxicology (3). Lectures dealing with pharmacokinetic and pharmacodynamic principles, methods of analysis, medico-legal aspects of drug testing, quality assurance. Prerequisite: Graduate standing or permission of instructor.

MLS 6944 Advanced Blood Banking Practicum I (3). A laboratory course providing indepth practical experience in the various aspects of Blood Banking in a community blood center and hospital transfusion service. Prerequisite: Graduate standing or permission of instructor.

MLS 6945 Advanced Blood Banking Practicum II (3). A laboratory course providing indepth practical experience in the various aspects of Blood Banking in a community blood center and hospital transfusion service. Prerequisite: Graduate standing or permission of instructor.

MLS 6946 Advanced Blood Banking Practicum III (3). A laboratory providing indepth practical experience in the various aspects of Blood Banking in a community blood center and hospital transfusion service. Prerequisite: Graduate standing or permission of instructor.

MLS 6938 Graduate Seminar. Oral presentation of literature review or research. Prerequisite: Graduate standing or permission of instructor.

MLS 6939 Advanced Topics in Medical Laboratory Sciences (3). Current topics in medical laboratory sciences not otherwise covered in the curriculum. Review of literature and discussion of the selected topics. May be repeated for credit with different subject content. Prerequisite: Graduate standing or permission of professor.

MLS 6971 Master's Thesis (1-6). Supervised research on an original research project submitted in partial fulfillment of Master's degree requirement. Minimum requirement of six credit hours. Prerequisite: Permission of major instructor.

Occupational Therapy

Reba L. Anderson, *Associate Professor and Chairperson*
Anne Harounzadeh, *Associate Professor*
Susan Kaplan, *Associate Professor*
Alice M. Bowker, *Assistant Professor*
Suze Dudley, *Assistant Professor*
Gail Maguire, *Associate Professor*

Occupational therapy is a health profession concerned with promoting the quality of life of individuals. Therapeutic techniques are directed toward restoration, reinforcement and enhancement of participation in life. Occupational therapy may be indicated for persons whose life has been interrupted by disease or injury, or those who suffer from developmental delays or problems associated with aging.

The occupational therapist assesses the client's abilities to carry out tasks and activities necessary for productive living. Working collaboratively with the client and considering his personal goals, lifestyle and environment, the therapist develops an intervention program designed to help restore the greatest possible functional capacity. During the treatment or rehabilitation process, the client actively engages in a directed program of purposeful, meaningful activities designed to increase his or her level of functioning. The occupational therapist works collaboratively with the client, other health professionals on the health care team, and community agency personnel. Occupational therapists serve a wide variety of individuals in all age ranges and work in settings such as community agencies, sheltered workshops, hospitals, schools, extended care facilities, and rehabilitation centers. There is an increasing demand for occupational therapists and excellent opportunities exist for career advancement.

Qualities that are necessary to be a successful therapist include the ability to work with others, look at the totality of human performance, think creatively, problem solve, and direct the actions of others.

Undergraduate Program

Degree: **Bachelor of Science**

In order to be admitted to the program in occupational therapy, applicants must meet the requirements for admission to the University, have a cumulative GPA of 2.5 or higher, and have completed required prerequisites and 60 semester hours of acceptable academic credit. Applicants must apply both to the University and to the Occupational Therapy Department. Enrollment is limited and one class is selected each academic year to begin Fall semester. The program is accredited by the American Occupational Therapy Association/American Medical Association.

Lower Division Preparation
Required Courses: Biological and physical sciences — six semester hours to include three semester hours of biology with lab, and three semester hours of physics, (recommended course: anatomy and physiology). Social Behavioral Sciences — twelve semester hours to include: Psychology —three semester hours. Theories of Personality three semester hours. Human Growth and Development — three semester hours. Sociology/Anthropology — three semester hours. Statistics — three semester hours. Introduction to

Computer Programming (Basic highly recommended) — three semester hours.

To be admitted into the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program
Required Courses

Junior Year

Fall Semester (16 semester hours)

OTH 3000	Professional Development	3
OTH 3012L	Therapeutic Communication	2
OTH 3123L	Tools and Materials	2
OTH 3160C	Adaptive Living Skills	2
PCB 3702	Intermediate Human Physiology	3
ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Lab	1

Spring Semester (14 semester hours)

OTH 3327	Issues in Psychosocial Dysfunction for Occupational Therapists	3
OTH 3413	Applied Kinesiology	2
OTH 3413L	Applied Kinesiology Laboratory	1
OTH 3520C	Developmental Theory I	3
OTH 3811L	Psychiatric Skills Lab for Occupational Therapists I	1
ZOO 4743	Neuroscience	3
ZOO 4743L	Neuroscience Lab	1

Summer Semester (4 semester hours)

OTH 3815	Field Work Experience Level I	3
OTH 3007	Medical Terminology	1

Senior Year

Fall Semester (15 semester hours)

OTH 4320	Psychiatric Occupational Therapy Theory and Evaluation	2
OTH 4321	Psychiatric Occupational Therapy Treatment I	1
OTH 4321L	Psychiatric Occupational Therapy Treatment I Laboratory	2
OTH 4411	Pathology and Medical-Surgical Disorders	3
OTH 4421C	Pathomechanics in Rehabilitation	3
OTH 4422	Evaluation and Treatment of Central Nervous System Dysfunction	4

Spring Semester (16 semester hours)

OTH 4112L	Therapeutic Media	3
OTH 4170L	Therapeutic Techniques in Physical Disabilities	2
OTH 4210	Developmental Theory II	2
OTH 4342	Psychiatric Occupational Therapy Treatment II	2
OTH 4342L	Psychiatric Occupational Therapy Treatment II Lab	1
OTH 4761	Professional Issues in Occupational Therapy	3
Elective In Clinical Specialization		3

Summer Semester (12 semester hours)

OTH 4850 or OTH 4851	Field Work Experience	12

Fall Semester

OTH 4850 or OTH 4851	Field Work Experience	12

Graduate Program

Degree: **Master of Science in Occupational Therapy**

The curriculum is composed of three main components: a core of occupational therapy courses to increase understanding of the theoretical bases and current issues of occupational therapy practice; a research component to develop critical problem solving, research, and writing skills; and a clinical specialty component that students design with approval of faculty. In the clinical specialty area, students have the opportunity to take four elective courses and develop a clinical project and their thesis in their area of interest in addition. The course of study is designed for advanced study for certified occupational therapists and permits part-time enrollment.

Admission Requirements:
To be admitted to the Master's degree program, students must:

1. Hold a bachelor's degree or equivalent from an accredited institution.
2. Have completed an accredited curriculum in occupational therapy.
3. Have a minimum of a 3.0 GPA average based on a 4.0 scale (upper division) or a combined score of 1000 (verbal and quantitative parts) on the Graduate Record Examination (GRE).
4. Have a basic statistics course.
5. Provide three letters of reference, a curriculum vitae/resume, a summary statement of professional and educational goals and assessment of current professional activities.
6. Receive approval from the departmental graduate admissions committee.
7. International students are accepted subject to space and fiscal limitations. Students must have a Bachelor's degree or equivalent in occupational therapy from an institution recognized in their own country as preparing students for graduate level study; academic eligibility for further study in their own country; demonstrate proficiency in the English language by a minimum score of 550 on the Test of English as a Foreign Language (TOEFL).

Degree Requirements:
The Master of Science in Occupational Therapy consists of 36 credits including a thesis. Fifteen credits of core courses must be taken in the department plus a minimum of six credit hours of thesis.

A maximum of six credits of graduate coursework may be transferred from other institutions, subject to the approval of the departmental graduate committee.

Required Courses: (36 semester hours)
Occupational Therapy Core:

OTH 6009	Current Issues and Theories of Occupational Therapy	3
OTH 6265	Measurement and Assessment in Occupational Therapy	3
OTH 6215	Advanced Occupational Therapy Intervention Strategies	3
OTH 6948	Continuing Clinical Competence for Occupational Therapists	3

Research Component

STA 5167	Statistical Methods in Research II	3
OTH 5760	Current Research in Occupational Therapy	3
OTH 6970	Master's Thesis	6

Clinical Specialty Component
Combination of occupational therapy and university electives in an identified area of clinical interest approved by the faculty 12

Course Descriptions

Definition of Prefixes
OTH — Occupational Therapy.

OTH 3000 Professional Development (3). History and theory of the discipline of occupational therapy, includes an introduction to clinical and community practice environments.

OTH 3007 Medical Terminology (1). A self-instructional program of medical terminology.

OTH 3008C Fundamentals of Human Performance (2). An introduction to the human body, its structure and function with an emphasis on visual assessment and palpation to evaluate physical dysfunction.

OTH 3012L Therapeutic Communication (2). Major focus of this course is on several modes of facilitating communication and opportunities for self-knowledge. Interpersonal Process Recall format is followed.

OTH 3123L Tools and Materials (2). The basic properties of woods and metals and the techniques used by occupational therapists in planning a project based on a hypothetical patient's problem.

OTH 3160C Adaptive Living Skills (2). Evaluation and adaptation of environments within which typical occupational therapy clients interact; specific limiting factors of general disabilities; variety of techniques and aides which compensate or adapt for loss.

OTH 3327 Issues in Psychosocial Dysfunction for Occupational Therapists (3). The analysis and identification of patterns of behavior and functional performance pertinent to occupational therapy practice in psychiatry.

OTH 3328 Foundations of Psychiatric Occupational Therapy Theory (2). An overview of past and current theories influencing the practice of occupational therapy in psychiatry.

OTH 3413 Applied Kinesiology (2)
OTH 3413L Applied Kinesiology Lab (1). A course providing learning experiences to develop skills in palpation, goniometry, manual muscle testing, and motion analysis of normal subjects.

OTH 3520C Developmental Theory I (3). Occupational therapy evaluation, treatment and management of developmental disabilities from birth through adolescence.

OTH 3811L Psychiatric Skills Lab for Occupational Therapy I (1). An experiential course directed toward integration and application of treatment modalities and principles for occupational therapists in psychiatry.

OTH 3815 Field Work Experience Level I (3). Pre-clinical experience in an approved training center.

OTH 4109 Technological Applications in Occupational Therapy (1). Overview of technological applications in clinical practice with emphasis on adaptations for the physically disabled student. Prerequisite: CDA 2310 or equivalent.

OTH 4109L Technological Applications in Occupational Therapy (1). Laboratory experience with various technological applications used in occupational therapy practice. Prerequisite: CDA 2310 or equivalent.

OTH 4112L Therapeutic Media (3). The study of selected major crafts as therapeutic modalities.

OTH 4170L Therapeutic Techniques in Physical Disabilities (2). Upper extremity prosthetic and orthotic devices are investigated. Presentation includes the biomechanics, anatomy, materials, and appliances necessary for fabrication, pre-and post-prosthetic and orthotic evaluation, checkout procedures and training methods.

OTH 4210 Developmental Theory II (2). The application of developmental theory to the occupational therapists' evaluation, treatment and management of adults and the aged.

OTH 4320 Psychiatric Occupational Therapy Theory and Evaluation (2). An in-depth study of occupational therapy theorists and evaluations pertinent to the practice of occupational therapists in psychiatry.

OTH 4321 Psychiatric Occupational Therapy Treatment I (1).
OTH 4321L Psychiatric Occupational Therapy Treatment I, Lab (2). A study of group process and the occupational therapist's use of groups and purposeful activity in psychiatric practice.

OTH 4342 Psychiatric Occupational Therapy Treatment II (2). Occupational therapy treatment approaches for clients exhibiting maladaptive behavior patterns.

OTH 4342L Psychiatric Occupational Therapy Treatment II Lab (1). Laboratory to accompany OTH 4342.

OTH 4411 Pathology and Medical-Surgical Disorders (3). Brief review of organ systems and primary diseases that affect each organ, with specific emphasis on the disabilities that would result from such diseases. Prerequisites: Anatomy, physiology.

OTH 4421C Pathomechanics in Rehabilitation (3). The analysis and application of biological and physical principles to the evaluation and treatment of patients with physical disabilities.

OTH 4422C Evaluation and Treatment of Central Nervous System Dysfunction (4). Occupational therapy evaluation and treatment of central nervous system dysfunction for clients of all ages.

OTH 4761 Professional Issues in Occupational Therapy (3). Professional issues facing occupational therapists including the role of research, organizational systems, and advocacy.

OTH 4813L Psychiatric Skills Lab for Occupational Therapy II (1). Continuation of OTH 3811L.

OTH 4850 Field Work Experience (12). Three months internship in a clinical setting.

OTH 4851 Field Work Experience (12). Three months internship in a clinical setting.

OTH 4852 Field Work Experience (VAR). Internship in a specialized treatment area.

OTH 4904 Independent Study (VAR). To be arranged with instructor according to the student's specialty.

OTH 4930 Mental Health Seminar (3). Course combines literature review and site visits to develop student's capability for critical analysis of occupational therapy program development in mental health. Prerequisites: Senior status or permission of instructor.

OTH 4931 Work Evaluation Seminar (3). The measurement and analysis of client abilities and work requirements applicable to the practice of occupational therapy. Prerequisites: Senior status or permission of instructor.

OTH 4932 Pediatric Seminar (3). Review of current research in advanced pediatric practice. Coordinated clinical experiences offer opportunities for application of theoretical approaches to evaluation and treatment. Prerequisites: Senior status or permission of instructor.

OTH 5174 Advanced OT Techniques in Upper Limb Prosthetics and Orthotics (3). Clinical OT techniques and pathomechanics applied to upper limb dysfunction including utilization of biofeedback and myoelectric components. Prerequisites: OTH 4421 and OTH 4170.

OTH 5195 Occupational Therapy Job Modification (3). Analysis and adaption of client's workplace for the disabled. Prerequisite: Admission to program or permission of instructor.

OTH 5345 Occupational Therapy Program Development in Psychiatry (3). Seminar discussion and practical experience in OT programming in psychiatry. Prerequisite: Admission to program or permission of instructor.

OTH 5326 Psychiatric O.T.: Contemporary Theory and Practice (3). Examination of contemporary knowledge relevant to the theory and practice of O.T. in psychiatry. Prerequisite: Admission to Program or permission of instructor.

OTH 5407 Theoretical Perspectives of Pain (3). Theoretical perspectives of pain: etiology, assessment, management and effects. Prerequisite: Admission to the program or permission of instructor.

OTH 5440 Treatment Approaches for the Neurologically Impaired (3). In depth instruction in approaches to the neurologically impaired patient. Emphasis will be on dysfunction due to stroke or head injury. Prerequisite: OTH 4422 or equivalent.

OTH 5630 OT Assessment of the Elderly (3). Study of assessment techniques appropriate for OT evaluation of the elderly. Prerequisite: Admission to program.

OTH 5764 Research in a Clinical Specialty (3). Participation in ongoing research of faculty members in clinical speciality area. Prerequisite: Permission of instructor.

OTH 6009 Current Issues and Theories of Occupational Therapy (3). Exploration of current issues and theories in Occupational Therapy leading to development of student's theoretical reference for practice. Prerequisite: Admission to the program.

OTH 6215 Advanced OT Intervention Strategies (3). Principles and characteristics of treatment regimens designed to enhance the study of treatment effectiveness. Emphasis on application of activity appropriate for student's clinical concentration. Prerequisite: Admission to program.

OTH 6265 Measurement and Assessment in Occupational Therapy (3). Measurement concepts and practices used in occupational therapy evaluation. Prerequisite: Admission to program or permission of instructor.

OTH 6538 Advanced Methods in Pediatric Assessment (3). Advanced applications of theory and research in the area of pediatric occupational therapy assessment. Skills in neonatal, neurodevelopmental, occupational behavior, and computer-assisted methods.

OTH 6548 Advanced Methods in Pediatric Occupational Therapy (3). Advanced application of theory and research in occupational therapy. Includes neurodevelopmental treatment approaches, neonates through adolescents. Prerequisite: OTH 6538

OTH 6948 Continuing Clinical Competence for Occupational Therapists (3). Design, execution, and presentation of a major Occupational Therapy project.

OTH 6970 Master's Thesis (3). Supervised research on a research project submitted in partial fulfillment of Master's degree requirement. Prerequisite: Permission of major professor.

Prosthetics and Orthotics

Ronald Spiers, *Associate Professor and Program Director,*
Geza F. Kogler, *Instructor*

Prosthetics and Orthotics are health professions concerned with rehabilitating patients with disabling conditions. Prosthetics is the science of designing and fitting a replacement for an absent limb or limb-segment, and orthotics is the science of designing and fitting a supportive or corrective device for an affected or abnormal functioning existing body segment. At the request of and in consultation with the physician, the prosthetist/orthotist assists in the formulation of prescription for the prosthesis/orthosis, and evaluates the patients' needs in relation to their particular condition, disease entity, and functional loss.

Prosthetics/orthotics basically requires a mechanical system be designed and fitted to a physiological system, such that the added mechanical device replaces a lost limb or supports or corrects an existing body segment abnormality. This illegal marriage of mechanical and physiological systems is reflected directly within the content of the course of study; the emphasis being placed on anatomy, physiology, pathology, kinesiology, biomechanics, and mechanical engineering. Concurrently with these topics prosthetics/orthotics science is also taught. Functioning in the clinical setting as an active member of a health care team, the prosthetist/orthotist collaborates with other health care professionals in the rehabilitation of patients with chronic, disabling illnesses and injuries or birth defects. Qualities that are necessary to be a successful prosthetist/orthotist include the ability to work with others, look at the totality of human performance, think creatively, problem-solve, and direct the actions of others.

To be admitted to the program in prosthetics/orthotics, applicants must meet the requirements for admission to the University, have a cumulative GPA of 2.8 or higher, have completed the required prerequisites, lower division requirements including CLAST, and 60 semester hours of acceptable academic credit. Applicants must apply both to the University and to the prosthetic/orthotic department. Enrollment is limited and one class is selected each academic year to begin Fall semester.

Degree: **Bachelor of Science in Prosthetics and Orthotics**

Lower Division Program
Required Courses

1. Biological or physical sciences, or both, six semester hours to include three semester hours of Biology with lab. Recommended Courses: Anatomy with Lab; Human Anatomy and Physiology with Lab.

2. Mathematics — six semester hours. Recommended courses: Trigonometry; Calculus with Analytic Geometry; Analytic Geometry.

3. Physics — six semester hours. Recommended courses: Physics with Lab, Mechanics.

4. Psychology — three semester hours. Human Growth and Development; Human Relations, Introduction to Psychology.

Upper Division Program
Required Courses

First Year

Fall Semester (16 semester hours)

ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Lab	1
EGN 3365	Materials in Engineering	3
OTH 4411	Pathology and Medical Surgical Disorders	3
PRO 3000	Prosthetic and Orthotic Techniques	4
Electives		2

Spring Semester (16 semester hours)

OTH 3413	Applied Kinesiology	2
OTH 3413L	Applied Kinesiology Lab	1
PRO 3300	Below Knee Prosthetics	3
PRO 3300L	Below Knee Prosthetics Lab	3
PRO 3310	Lower Limb Orthotics I	2
PRO 3320	Lower Limb Orthotics II	2
PRO 3310L	Lower Limb Orthotics Lab	3

Summer Semester (6 semester hours)

OTH 3007	Medical Terminology	1
PHT 3310C	Orthopedics	2
PRO 3800	Field Work Experience Level I	3

Second Year

Fall Semester (17 semester hours)

ETM 3510	Mechanical Design I	3
PCB 3702	Intermediate Human Physiology	3
PRO 4330	Above Knee Prosthetics I	2
PRO 4340	Above Knee Prosthetics II	2
PRO 4330L	Above Knee Prosthetics Lab	3
PRO 4350	Spinal Orthotics	2
PRO 4350L	Spinal Orthotics Lab	2

Spring Semester (16 semester hours)

MAN 4802	Small Business Management	3
DEP 3402	Psychology of Adulthood	3
PRO 4360	Upper Limb Prosthetics	3
PRO 4360L	Upper Limb Prosthetics Lab	2
PRO 4370	Upper Limb Orthotics	3
PRO 4370L	Upper Limb Orthotics Lab	2

Summer Semester

PRO 4850	Clinical Internship: Supervised Setting — 13 week placement	8

Course Descriptions

Definition of Prefixes

PRO—Prosthetics/Orthotics

PRO 3000 Introduction to Prosthetics and Orthotics (4). Lecture and demonstrations to introduce the student to prosthetic orthotic and biomechanical principles utilized during the clinical rehabilitation process. Prerequisites: Admission to program or permission of instructor, or both.

PRO 3300 Below Knee Prosthetics (3). Techniques of evaluation and education for all types of below knee amputations as well as instruction in fitting the amputee. Prerequisite: PRO 3000. Corequisite: PRO 3300L.

PRO 3300L Below Knee Prosthetic Laboratory (3). Observation and supervised application of below knee amputee assessment, device recommendation, and fabrication techniques. Prerequisite: PRO 3000. Corequisite: PRO 3300.

PRO 3310 Lower Limb Orthotics I (2). Focus is on the management of adult and juvenile patients with ankle/foot disabilities. Prerequisite: PRO 3000. Corequisites: PRO 3320, PRO 3310L.

PRO 3310L Lower Limb Orthotics Laboratory (3). Laboratory sessions focus on the orthotic management of juvenile and adult patients with lower limb disabilities. Prerequisite: PRO 3000. Corequisites: PRO 3310, PRO 3320.

PRO 3320 Lower Limb Orthotics II (3). Focus is on the orthotic management of adult and juvenile patients with conditions affecting hip and knee. Prerequisite: PRO 3000. Corequisites: PRO 3310, PRO 3310L.

PRO 3800 Field Work Experience (3). Clinical experience in an approved prosthetic or orthotic center, or both. Prerequisite: PRO 3000, PRO 3310L.

PRO 4330 Above Knee Prosthetics I (2). Principles of fabrication, fit, dynamic alignment, techniques of evaluation, and education for suction suspended prostheses. Prerequisite: PRO 3300, PRO 3300L. Corequisites: PRO 4300L, PRO 4340.

PRO 4330L Above Knee Prosthetics Laboratory (3). Observation and supervised application of prosthetics for above knee amputee patients; assessment, device recommendation, and fabrication techniques. Prerequisites: PRO 3300, PRO 3300L. Corequisites: PRO 4330, PRO 4340.

PRO 4340 Above Knee Prosthetics II (2). Principles of fabrication, fit, dynamic alignment, techniques of evaluation and education for conventional non-suction prostheses. Prerequisites: PRO 3300, PRO 3300L. Corequisites: PRO 4330L, PRO 4330.

PRO 4350 Spinal Orthotics (2). Spinal and pelvic biomechanics and pathomechanics, components and techniques for fabrication of spinal orthosis. Prerequisite: PRO 3000. Corequisite: PRO 4350L.

PRO 4350L Spinal Orthotic Laboratory (2). Application of principles and techniques presented in PRO 4350 to the construction of spinal orthosis. Prerequisite: PRO 3000. Corequisite: PRO 4350.

PRO 4360 Upper Limb Prosthetics (3). Principles and techniques of prosthetic evaluation and education for all levels of upper extremity amputees. Prerequisite: PRO 3000. Corequisite: PRO 4360L.

PRO 4360L Upper Limb Prosthetics Laboratory (2). Client assessment, device recommendation, and fabrication of upper limb prosthetic devices. Prerequisite: PRO 3000. Corequisite: PRO 4360.

PRO 4370 Upper Limb Orthotics (3). Biomechanics and pathomechanics as applied to upper extremity orthotic components and materials. Prerequisite: PRO 3000. Corequisite: PRO 4370L.

PRO 4370L Upper Limb Orthotics (2). Application techniques and procedures described for upper limb orthotics, including evaluation of physical and functional deficits, measurement, fabrication, fitting and evaluation of devices. Prerequisite: PRO 3000. Corequisite: PRO 4370.

PRO 48[illegible] Clinical Internship (8). Directed clinical experience in an approved prosthetic or orthotic center, or both. Prerequisite: Satisfactory completion of previous didactic courses or consent of instructor.

Physical Therapy

Awilda R. Haskins, *Assistant Professor and Chairperson*
Burton J. Dunevitz, *Associate Professor*
Leonard Elbaum, *Assistant Professor*
Ira Fiebert, *Associate Professor*
Jennifer Lander, *Assistant Professor*

The program is accredited by the American Physical Therapy Association, a specialized accrediting body recognized by the Council on Post-Secondary Accreditation. The emphasis is placed upon a student-centered approach whereby individuals progress through a variety of learning experiences designed to develop their evaluative and applied therapeutic skills in the treatment of musculoskeletal, neurologic, cardiovascular, and pulmonary disorders. The students receive experiential and didactic instruction from clinical physical therapists, physicians, and other medical professionals. Clinical education is conducted in accredited centers throughout the United States.

Graduates of the program are prepared to assume employment in general hospitals, rehabilitation centers, private clinics, home health care facilities, school systems, sports medicine units, and in the self-employed sector.

Students who apply for admission to the program must meet the general education requirements of the University. Acceptance must be determined both by the University and the Physical Therapy Department. Enrollment is limited and admission is selective.

Note: Students must contact the Physical Therapy Department directly for all applications and information materials. Deadline for receiving applications is January 15. Classes are selected in April to commence coursework in June.

Degree: **Bachelor of Science**

Lower Division Preparation

At least 60 semester hours of an acceptable level of college credit work; which includes at least one semester of statistics and the following prerequisite courses: at least one academic year of science coursework (including laboratory) in each of the areas of biology/zoology (Human or Vertebrate Anatomy and Physiology is recommended), chemistry, and physics as well as three courses in psychology or two psychology and one sociology (child development is recommended); a minimal GPA average of 2.75 in the prerequisite courses and a minimal overall GPA of 2.75 by December 31 of the year prior to the anticipated admission, or attainment of an overall GPA of less than 2.75, but with a prerequisite GPA of 3.3 or higher; completion of at least 50 clock hours of work in, observation of, or interviews with personnel in physical therapy clinics. The greater the number of hours of experience and the wider the variety, the better qualified the candidates become.

To be admitted into the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program. At least 14 hours of prerequisites must be completed before December 31. All general education and prerequisites must be completed no later than the Spring semester.

Upper Division Program

All Required Courses: (89 semester hours)

Junior Year

Summer Semester (6 semester hours)

ZOO 3734	Gross Anatomy II	3
ZOO 3734L	Gross Anatomy Lab II	2
PHT 3001	Introduction to Physical Therapy	1

Fall Semester (17 semester hours)

PHT 3122	Clinical Kinesiology	5
PHT 3122L	Clinical Kinesiology Laboratory	1
PHT 3258	Basic Procedures	1
PHT 3258L	Basic Procedures Lab	1
PCB 3703	Human Physiology I	3
PCB 3703L	Human Physiology Laboratory	1
ZOO 3733	Gross Anatomy I	3
ZOO 3733L	Gross Anatomy Lab I	2

Spring Semester (15 semester hours)

PHT 3133	Musculoskeletal Evaluation	1
PHT 3133L	Musculoskeletal Evaluation Lab	1
PHT 3141	Evaluation Through the Life Cycles	2
PHT 3222	Therapeutic Exercise	1
PHT 3222L	Therapeutic Exercise Lab	2
PHT 3150L	Physical Therapy and Fitness Lab	1
PHT 3310	Orthopedics	4
PCB 3704	Human Physiology II	3

Summer Semester (10-13 semester hours)

PHT 3259	Treatment of Pain	3
PHT 3259L	Electrotherapy Lab	1
PHT 3250	Problem Solving in Musculoskeletal Disorders	1
PHT 3400	Emotional Aspects of Physical Disability	2
PHT 3804	Sections L1 and L2 Junior Clinical Internship	3
PHT 4905	Independent Study (optional)	1-3

Senior Year

Fall Semester (15 semester hours)

PHT 4160	Structural and Functional Aspects of Neurology	4
PHT 4231	Rehabilitation	1
PHT 4231L	Rehabilitation Lab	2
PHT 4234	Neurorehabilitation	2
PHT 4234L	Neurorehabilitation Lab	2
PHT 4300	Physical Therapy and Human Disorders	3
PHT 4933	Independent Research in Physical Therapy	1

Spring Semester (18 semester hours)

PHT 4233	Neurohabilitation	2
PHT 4233L	Neurohabilitation Lab	1
PHT 4313	Clinical Neurology	4
PHT 4510	Organization and Administration	3
PHT 4934	Physical Therapy Research Seminar	2
PHT 4936	Current Topics	3
Humanities Elective		3

Summer Semester

PHT 4826	Senior Clinical Internship	8

Course Descriptions

Definition of Prefixes

PCB and ZOO — Biological Sciences; PHT — Physical Therapy

PHT 3001 Introduction to Physical Therapy (1). A survey of the profession vis-a-vis other health professions; ethics, and basic medical communication.

PHT 3122 Clinical Kinesiology (5). A study of the anatomical, physiological, and biomechanical principles as related to the analysis of motion of the normal human body, with direct correlation to the clinical situation.

PHT 3122L Clinical Kinesiology Lab (1). Laboratory experiences in identifying and palpating the various components of the human musculoskeletal system while the body is at rest and in motion.

PHT 3133 Musculoskeletal Evaluation (1). Theory and fundamentals of goniometry, joint mobilization, muscle testing, x-ray identification, and posture and gait evaluation.

PHT 3133L Musculoskeletal Evaluation Lab (1). Laboratory practice in applied goniometry,joint mobilization, muscle testing, x-ray identification and posture and gait evaluations.

PHT 3141 Evaluation Through the Life Cycles (2). A study of the neuromuscular systems through the life cycles; includes evaluation methods; a prerequisite to PHT 4233.

PHT 3150L Physical Therapy and Fitness Lab (1). Laboratory experience for application of and participation in physical therapy programs for people who seek optimal movement function. Focus on sports and fitness training. Corequisite: PCB 3704.

PHT 3222 Therapeutic Exercise (1). The principles and rationale for basic therapeutic exercise procedures are presented in lecture format.

PHT 3222L Therapeutic Exercise Lab (2). Laboratory experiences provide practice and evaluation in techniques of applying the principles of therapeutic exercise. Corequisite: PHT 3222.

PHT 3250 Problem Solving In Musculoskeletal Disorders (1). A seminar class wherein students are assigned a clinical orthopedic problem and evaluate, goal set, treatment plan and role play the treatment application. Prerequisites: PHT 3133, 3133L, 3310, 3222.

PHT 3258 Basic Procedures (1). A lecture format is used to study the scientific rationale for basic physical therapy procedures including vital signs measurement, massage, and superficial heat.

PHT 3258L Procedures Lab (1). Laboratory experience and evaluation of skills in basic physical therapy procedures including vital signs measurement, massage, and superficial heat. Corequisite: PHT 3258.

PHT 3259 Treatment of Pain (3). Application of current theories of the causes and management of acute and chronic pain to the use of electrotherapeutic modalities in physical therapy. Corequisite: PHT 3259L.

PHT 3259L Electrotherapy Lab. (1). Laboratory experience to develop competency with electrotherapeutic modalities in the treatment of pain. Includes low volt and high volt current, tens, ultrasound, diathermy, iontophoresis, biofeedback. Corequisite: PHT 3259.

PHT 3310 Orthopedics (4). Multimedia lectures and patient case studies presented on the evaluation and management (surgical and non-surgical) of the orthopedic patient, correlated with laboratory practice in evaluative and treatment skills.

PHT 3400 Emotional Aspects of Physical Disability (2). Examines attitudes of physical therapists toward disability, emotional reactions of patients to their own disability, and emotional disorders commonly seen in patients treated by physical therapists.

PHT 3804 Clinical Internship (3). Supervised full- time clinical experience, designed to offer the student experience in patient care, particularly musculoskeletal evaluation, application of basic physical techniques, and orthopedic planning and implementation.

PHT 4160 Structural and Functional Aspects of Neurology (4). Study of the structure and functions of those components of the central and peripheral nervous systems as they govern normalcy and pathology. Prerequisites: ZOO 3733, ZOO 3733L.

PHT 4231 Rehabilitation (1). Explores functional evaluation, goal setting, and treatment planning for severely debilitated patients with medical, cardiac, pulmonary, thermal and spinal-cord- related disabilities. Other health disciplines participate in some presentations.

PHT 4231L Rehabilitation Lab (2). Laboratory practice in submaximal cardiac stress testing, chest physical therapy, splinting, ADL training, wheelchair fitting, and treatment of patients with spinal cord injuries. Corequisite:PHT 4231.

PHT 4233 Neurohabilitation (2). Application of various exercise techniques to the treatment of individuals with neurodevelopmental deficits.

PHT 4233L Neurohabilitation Lab (1). Laboratory and field experiences will be utilized for practice of neurohabilitation techniques. Corequisite: PHT 4233.

PHT 4234 Neurorehabilitation (2). A lecture/discussion format is used to study various neurophysiological theories and principles which are applied in rehabilitation.

PHT 4234L Neurorehabilitation Lab (2). Laboratory experiences in application of the Neurorehabilitation lecture material from PHT 4234. Corequisite: PHT 4234.

PHT 4300 Physical Therapy and Human Disorders (3). Study of systemic and organ-specific disease and the related medical terminology as they relate to the practice of physical therapy; explores the current literature in selected disease topics.

PHT 4313 Clinical Neurology (4). Emphasizes evaluation differential diagnosis, goal setting, and treatment planning for patients with neurologic disability. Presented by neurologists and by physical therapists who provide clinical experience in neurologic evaluation.

PHT 4510 Organization and Administration (3). A study in the management of physical therapy delivery systems and current health trends affecting the profession.

PHT 4826 Senior Clinical Internship (8). Supervised full-time clinical experience, designed to afford the student the opportunity to practice total patient care, as well as administration and supervision in physical therapy.

PHT 4905 Independent Study (1-3). The student will select a particular aspect of physical therapy or closely related subject for in-depth independent study with a faculty preceptor.

PHT 4933 Independent Research in Physical Therapy (1). This course will provide physical therapy students with the background of didactic information necessary for them to complete a research project in PHT 4934.

PHT 4934 Physical Therapy Research Seminar (2). To allow students to collect data, analyze result, and submit findings in accepted written style; includes oral presentations to an audience of health professionals.

PHT 4936 Current Topics in Physical Therapy (1-3). Study of current topic or limited number of topics not otherwise presented in the curriculum. May be repeated with different subject content. Prerequisite: Senior standing.

PHT 5320 Evaluating and Treating Handicapped Children (5). Based on review of neuromusculoskeletal development and dysfunction, theories of neurohabilitation and pediatric orthopedics are presented and applied through lectures and labs. Corequisites: PHT 5510, 5810, 5400.

PHT 5405 Teaching Physical Therapy Treatment Programs (3). Lectures and projects to plan in-service programs, prepare written instructions, and teach other staff and families about P.T. programs in Spanish and English. Corequisites: PHT 5810, 5510, 5320C.

PHT 5515 Managing P.T. Services for Handicapped Children (2). Lectures and group work to develop consulting and management skills in physical therapists providing services to handicapped children. Corequisites: PHT 5320C, 5810, 5400.

PHT 5815 Clerkship in Pediatric Physical Therapy (2). Two-week full-time clinical experience in a school system combined with independent study of question or issue in pediatric P.T. to be presented as a proposal. Corequisites: PHT 5320C, 5400, 5510.

School of Health Sciences

Dean	*William J. Keppler*
Chairpersons:	
Dietetics and Nutrition	*Nancy S. Wellman*
Medical Laboratory Sciences	*Janet A. Lineback*
Occupational Therapy	*Reba L. Anderson*
Physical Therapy	*Awilda R. Haskins*
Prosthetics and Orthotics	*Ronald Spiers*

Anderson, Barbara V., M.S., M.T. (ASCP), S.B.B., *(Ohio State University), Assistant Professor, Medical Laboratory Sciences*

Anderson, Reba L., Ph.D., O.T.R./L. *(University of Florida), Associate Professor, Occupational Therapy and Acting Dean.*

Bowker, Alice M., M.A., O.T.R./L. *(Northwestern University), Assistant Professor, Occupational Therapy*

Curry Bartley, Katharine R., Ph.D. *(Southern Illinois University), Professor, Dietetics and Nutrition*

D'Agati, Suzanne, M.S., O.T.R./L. *(University of Florida), Assistant Professor, Occupational Therapy*

Dudley, Suze, M.S., O.T.R./L. *(Florida International University), Assistant Professor, Occupational Therapy*

Dunevitz, Burton J., Ph.D., P.T. *(Nova University), Associate Professor, Physical Therapy*

Easton, Penelope S., Ph.D., R.D. *(Southern Illinois University), Professor Emeritus, Dietetics and Nutrition*

Elbaum, Leonard, M.M. P.T. *(University of Miami), Assistant Professor, Physical Therapy*

Enrione, Evelyn, Ph.D., R.D. *(Purdue University), Assistant Professor, Dietetics and Nutrition*

Feibert, Ira, Ph.D., P.T. *(Georgia State University), Associate Professor, Physical Therapy*

Haskins, Awilda R., M.S. P.T. *(State University of New York at Buffalo), Assistant Professor, and Acting Chairperson, Physical Therapy*

Himburg, Susan P., Ph.D., R.D. *(University of Miami), Assistant Professor, Dietetics and Nutrition*

Harounzadeh, Anne, M.S., O.T.R./L. *(Southwest Texas State University), Assistant Professor, Occupational Therapy*

Kaplan, Susan R., M.H.S., O.T.R./L. *(University of Florida), Assistant Professor, Occupational Therapy*

Keppler, William J., Ph.D. *(University of Illinois), Professor, Medical Laboratory Sciences, and Dean*

Keran, Eugene, Ph.D. C. (ASCP), *(University of Nebraska), Assistant Professor, Medical Laboratory Sciences*

Kogler, Geza, B.A. *(Wayne State University), Instructor, Prosthetics and Orthotics*

Lander, Jennifer, M.S., L.P.T. *(Long Island University, Brooklyn Center), Assistant Professor, Physical Therapy*

Lineback, Janet A., Ph.D., M.T., (ASCP), *(University of Miami), Associate Professor and Chairperson, Medical Laboratory Sciences*

Maguire, Gail H., Ph.D., O.T.R./L *(University of Maryland), Associate Professor and Graduate Coordinator, Occupational Therapy.*

Shen, Patrick F., Ph.D., M.T. (ASCP) *(University of Arkansas), Assistant Professor, Medical Laboratory Sciences*

Smith, Sylvia L., Ph.D., S.M., (AAM), (ASCP) *(University of Miami), Associate Professor, Medical Laboratory Sciences*

Spiers, Ronald, M.S. *(Stratclyde University), Associate Professor, Prosthetics and Orthotics*

Wellman, Nancy S., Ph.D., R.D. *(University of Miami), Associate Professor and Chairperson, Dietetics and Nutrition*

School of Hospitality Management

School of Hospitality Management

Anthony G. Marshall, *Dean and Professor*
Rocco M. Angelo, *Associate Dean and Associate Professor*
Robert A. Beck, *Distinguished Scholar in Residence*
Elio Bellucci, *Associate Professor*
Leonard Berkowitz, *Lecturer*
M. Chase Burritt, *Visiting Assistant Professor*
Patrick J. Cassidy, *Visiting Lecturer*
Edwin Dean, *Lecturer*
Lee C. Dickson, *Associate Professor*
Peter Goffe, *Associate Professor*
Joseph Gregg, *Associate Professor*
David Grier, *Instructor*
Fritz Hagenmeyer, *Associate Professor*
Albert J. Halebllan, *Associate Professor*
Frederick Haverly, *Lecturer*
Michael Hurst, *Professor*
Richard A. Huse, *Associate Professor*
Charles Ilvento, *Associate Professor*
Michael Kobasky, *Director of Student Affairs*
Lendal Kotschevar, *Professor*
Steven Moll, *Associate Professor*
Elisa Moncarz, *Associate Professor*
William J. Morgan, Jr., *Professor*
Charles Nichola, *Lecturer*
William O'Brien, *Assistant Professor*
Alan J. Parker, *Professor*
Nestor Portocarrero, *Associate Professor*
Roger Probst, *Lecturer*
Norman Ringstrom, *Professor*
Kevin Robson, *Associate Professor*
William Stanford, *Lecturer*
David M. Talty, *Visiting Assistant Professor*
Mary L. Tanke, *Assistant Professor*
Andrew Vladimir, *Visiting Assistant Professor*
Mickey Warner, *Associate Professor*
Theodore White, *Lecturer*
Loria Winns, *Instructor*

The School of Hospitality Management offers Bachelor's and Master's programs that combine practical experience with classroom theory to assist the student to gain the understanding, skills, and techniques needed to qualify for job opportunities, or to achieve his or her career goals in the growing hospitality industry.

With the cooperation of industry executives, the School has created an internship program which literally utilizes the hotels, motels, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. The advanced phase of the internship program provides each student a structured and closely supervised management experience normally not available to a student until he or she has entered the industry after graduation. An active Industry Advisory Board - which includes outstanding executives in the hotel, food and travel industries - works regularly with the faculty, staff, and students of the School to formulate and update a curriculum that is current, flexible, and related to the needs of the hospitality industry.

The School has been designated a Program of Distinction by the Board of Regents.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics, and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Admission

Applicants to the School must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the School.

Undergraduate

Any student who has completed two years of college (60 semester hours) may apply for admission. Full credit will be granted both Associate of Arts and Associate of Science degrees. One may enroll on either a full-time or a part-time basis.

It is not necessary to have been previously enrolled in a hotel or restaurant program. The curriculum will provide the specialized professional education to equip the student for a career in hospitality management. Students with training in liberal arts, business, education, or technology, for example, are qualified to enroll in the program.

Graduate

Each candidate for admission to the graduate program must present his or her score on the Graduate Record Examination or the GMAT and proof of a Bachelor's Degree from an accredited institution.

To be admitted, a candidate must have maintained a 'B' average in all upper divisional work or attain a minimum score of 1000 on the Graduate Record Examination (verbal and quantitative aptitude sections) or attain a minimum score of 450 on the GMAT.

Applicants who meet admissions criteria but lack undergraduate preparation in Hospitality Management must complete a series of undergraduate preparatory courses. Specific courses will depend upon the individual's undergraduate preparation. 24 credit hours of preparatory courses will be required. A maximum of six semester hours of graduate credit may be transferred from any other university or from the graduate programs of this University.

Additional information on admission procedures may be found in the Admission section of the Catalog.

Questions concerning curriculum should be addressed to the Director of Student Affairs of the School of Hospitality Management.

Non-Degree Seeking Students

A number of persons currently employed in the hospitality field may not have the educational requirements to meet degree admission standards, but may be interested in enrolling in certain specific courses to improve their skills and to enhance their chances for promotion. Any person currently employed in the field may register as a Non-Degree Seeking Student for a total of 15 semester hours.

Certificate Program

The School has Certificate Programs in Hotel Management, Restaurant Management, and Travel and Tourism Management. Each program has a core requirement and electives to meet the specific needs of each candidate.

The programs are open to all students with a high school education and experience in the industry.

The candidate must submit a satisfactory score on the TOEFL exam or its equivalent and a Certificate of Finances document.

Undergraduate Study

The School operates on a single major concept in which a core of 48 semester credits is required of all students. The program requires an additional 15 semester credits of electives. Under this system, the student enjoys maximum flexibility in choosing areas of emphasis while being assured of a comprehensive coverage of all areas of hospitality management. A maximum of 60 semester credits may be transferred from a junior or community college program. More credits may be transferred from a four-year institution. There is a requirement that all students work at least 800 hours in the Hospitality Industry in addition to the Advanced Internship.

Locations

The School is located on two campuses:
The University Park located at Southwest 107th Avenue and Southwest Eighth Street (US 41), Miami, Florida.

Broward Center located in Fort Lauderdale at 3501 Southwest Davie Road on the Central Campus of Broward Community College.

Degree: **Bachelor of Science**

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Transfer students should complete a minimum of 60 semester hours including general education requirements. General education requirements must be completed prior to graduation from the University.

Accounting is a prerequisite for taking course work in the accounting and finance areas. The student who has not taken this prerequisite will be required to take this course during his or her first year at the University.

Course Requirements: (63 semester hours)

Management, Accounting, Finance, and Information Systems: (12 semester hours)

HFT 3423	Hospitality Information Systems	3
HFT 3453	Hospitality Industry Management	3
HFT 4464	Interpretation of Hospitality Financial Statements	3
HFT 4474	Profit Planning and Decision Making in the Hospitality Industry	3

Food and Beverage Management: (15 semester hours)

FSS 3221	Introduction to Commercial Food Production	3
FSS 3232	Intermediate Quantity Food Production	3
FSS 3234	Volume Feeding Management	3
FSS 3243	Basic Meat Science	3
HFT 3263	Restaurant Management	3

Administration: (21 semester hours)

HFT 3323	Physical Plant Management	3
HFT 3503	Marketing Strategy-Phase I	3
HFT 3514	Marketing Strategy-Phase II	3
HFT 3603	Law as Related to the Hospitality Industry	3
HFT 3700	Fundamentals of Tourism	3
HFT 3945	Advanced Internship	3
HFT 4234	Union Management Relations	3
Electives		15

Degree: **Master of Science**

Core Courses: (39 semester hours)

HFT 5476	Feasibility Studies for the Hospitality Industry[1]	3
or		
HFT 5478	Restaurant Development[1]	
HFT 6227	Hospitality Management Training Systems[1]	3
HFT 6246	Organizational Behavior in the Hospitality Industry	3
HFT 6296	Seminar in hospitality Management	3
HFT 6446	Hospitality Industry Organizational Information Systems	3
HFT 6477	Financial Management for the Hospitality Industry	3
HFT 6586	Research and Statistical Methods	3
HFT 6697	Hospitality Law Seminar	3
		24
Electives: (5000 and 6000 level)[2]		15

[1] In place of the three following courses - HFT 5227, HFT 5476 (or HFT 5478) and one elective, the student may choose to complete HFT 6916 Hospitality Industry Project.

[2] *Note:* One of the electives must be HFT 6946 Graduate Internship (3 credits).

Course Descriptions

Definition of Prefixes

FOS — Food Science; FSS — Food Service Systems; HFT — Hotel, Food, Tourism.

FOS 4201 Sanitation in Food Service Operation (3). The causes and prevention of food poisoning are stressed. Emphasis is placed on the current problems confronting the industry, with recent food developments as they relate to sanitation. Curriculum developed by the National Sanitation Foundation is included.

FSS 3221 Introductory Commercial Food Service Production (3). Provides an introduction to commercial food preparation, nutrition, standard product identification, storage, and supervisory techniques in the area of food preparation. Course includes classroom instruction, demonstrations, and actual cooking experience.

FSS 3232 Intermediate Quantity Food Production Techniques (3). An advanced commercial food production course which provides the student with the opportunity to achieve competence and to develop techniques in the garnishing, pastry, serving, and convenience food areas. Prerequisite: FSS 3221 or equivalent.

FSS 3234 Volume Feeding Management (3). The facilities of various types of large quantity food operations are utilized to provide the student with both production and managerial experience. Students will be rotated through production stations and, as managers, will be required to plan menus, supervise preparation and service, handle customer relations, and keep accurate accounting records on the profit and loss phases of the operation. Staffing, merchandising, and cost control procedures are integral parts of the course. Prerequisites: FSS 3221 and FSS 3232.

FSS 3241 Classical Cuisine (3). Provides an opportunity for students skilled in cookery to expand their knowledge of food preparation into the area of world-respected traditional dishes. The course includes lecture, demonstration, and actual preparation of classical dishes. The students will utilize conventional methods of preparation as well as convenience foods. Prerequisites: FSS 3221, FSS 3232, FSS 3234.

FSS 3243 Basic Meat Science (3). Fundamentals of meat: quality yield, utilization of cuts, availability, costing, buying, inventorying, packaging, labor, and trends.

FSS 4105 Purchasing and Menu Planning (3). Basic information on sources, grades and standards, criteria for selection, purchasing, and storage for the major foods, including the development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production staff. Item analysis and merchandising features are emphasized.

FSS 4245 Advanced Meat Science (3). An advanced course which considers the variable factors of meat, poultry, and fish utilization. Emphasis is placed upon newer techniques in purchasing, maximizing yields, and providing products in unique form. The use of TVP and other analogues is considered, as are the functions of the specialized commissary-type of meat processing plants. Guest speakers will be utilized, and field trips to protein processing plants will be made, to emphasize major points. Prerequisite: FSS 3243.

FSS 4315 Institutional Food Service Management (3). This course brings together basic management techniques and controls that are useful in the area of institutional feeding programs. Federal and state government regulations are studied. Special emphasis is given to hospital food service direction and the National School Lunch Program.

FSS 4431 Food Facility Layout and Design (3). Defines and explains concepts, principles, and procedures in evaluating and/or developing varied commercial food service facilities that will increase profit by reducing investment and operating cost and/or by increasing capacity. Actual installations are intensively reviewed. Current trends in food service methodology and technology are studied in detail, and food service equipment manufacturing processes and distribution economics are observed and evaluated.

FSS 4614 Food and Beverage Merchandising (3). This is an application of marketing and advertising principles to the specific area of food and beverage for hotels and restaurants.

FSS 5361 Advanced Food Service Operation (3). A senior course designed to coordinate the various management functions covered in previous courses into a comprehensive approach to profitable food service operations.

FSS 6106 Purchasing and Menu Planning (3). Advanced information on sources, grades and standards, criteria for selection, purchasing and storage for the major foods, including development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production staff. Item analysis and merchandising features are emphasized.

FSS 6365 Food Service Systems (3). Principles of system analysis applied to the food service industry. Attention is given to the organization of modern food production, preparation, and distribution systems. Case study problems require application of economic and management principles for solution.

FSS 6452 Advanced Food Service Design Operations (3). Advanced planning, programming, and project documentation for commercial food service facilities. Spatial, environmental, and electro-mechanical design factors are stressed, with particular emphasis on efficiency modulation and investment aspects. Recommended: HFT 3343 or FSS 4431.

FSS 6834 Food Service Research (3). The planning, executing, and reporting of an individual research project dealing with significant problems in food service. Students demonstrate an understanding of research techniques through data collection, evaluation, and interpretation.

HFT 3000 Introduction to Hospitality Management (3). A survey course providing an overview of the industry: its history, problems, and general operating procedures. Operating executives from the fields of hotel, restaurant, food service, travel, and tourism will be featured periodically.

HFT 3203 Fundamentals of Management in the Hospitality Industry (3). A basic course in general management to acquaint the student with theories and principles of organization, the tools of managerial decision-making , and the management process, with particular reference to the hospitality industry.

HFT 3263 Restaurant Management (3). An analysis of the principal operating problems in the restaurant field. Procedures, approaches, and techniques of management are explored and developed as they relate to the various categories of restaurants ranging from fast food to gourmet. Industry leaders will present successful concepts of restaurant operation.

HFT 3313 Hospitality Property Management (3). The problems of cost and operation of pest control, security, parking, general cleaning and upkeep, laundry, fire prevention, pools, tennis courts, and care of guest rooms and public space, with emphasis on equipment, personnel, and modern innovations.

HFT 3323 Physical Plant Management (3). A comprehensive survey of engineering, maintenance and efficiency control in hotels, restaurants, and institutions.

HFT 3343 Hotel and Restaurant Planning and Design (3). Considers analysis, evaluation, and scheduling of the economic, technical, aesthetic, and merchandising factors involved in the planning, programming and design stages of hotels and restaurants. Actual hotel and restaurant projects will serve as the basis for discussion and student project work.

HFT 3344 Fast Food Systems Management (3). A study of management systems in a wide range of fast food restaurants, including site criteria, design and layout, operations, marketing techniques and cost controls.

HFT 3403 Introduction to Management Accounting for the Hospitality Industry (3). Introduction and practice in accounting processes, and the principles of hospitality management accounting. Prepares the student for work in advanced accounting and financial management. Required for students who have not completed an introductory accounting course.

HFT 3423 Introduction to Hospitality Information Systems (3). An introduction to the general concepts and equipment that support information management by computer within the Hospitality Industry. Data field handling and other information management techniques are stressed. Students are first required to write application programs, then to complete a series of assignments utilizing application programs relating to guest cycle management on the school's computerized property management system.

HFT 3434 Club Operations Management (3). Lecture, discussion, case studies, and field trips specifically designed to expose the future club manager, golf professional, and turf manager to club operations. Introduction to the uniform system of accounts for clubs, annual club studies for operating results, control systems, taxation, budgeting, and management reports.

HFT 3453 Operations Control (3). Study of the management tools available to control sales and expenses within hospitality operations. Detailed analysis of the responsibility centers using a cost managing approach. Case problems provide the students the opportunity to develop control systems for food and lodging organizations. Prerequisite: HFT 3403

HFT 3454 Food and Beverage Cost Control (3). Fundamentals of food and beverage cost controls for hotel and restaurant operations.

HFT 3503 Marketing Strategy Phase I (3). Application of marketing principles to business operations within the hospitality industry, with particular emphasis on viewing marketing as a competitive strategy in domestic and international markets.

HFT 3505 Hospitality Buyer Behavior (3). An analysis of influences on buyer and the process involved in their purchase of hospitality services and the implications for marketing-strategy design and execution. Prerequisite: HFT 3503 or equivalent.

HFT 3514 Marketing Strategy Phase II (3). Consideration of all aspects of the advertising element of the promotion mix to execute the corporation's or tourist destination's marketing strategy. Prerequisite: HFT 3503.

HFT 3524 Sales Management for the Hospitality Industry (3). The course focuses on organizing sales and servicing effort and executing marketing strategy by developing sales strategies, plans and tactics for hospitality corporations and tourist destinations. Special emphasis is placed on group markets and gaining travel retailer support for destinations, hotel corporations, and cruiselines. The course may be followed by a sales management internship. Prerequisite: HFT 3503.

HFT 3603 Law as Related to the Hospitality Industry (3). A basic course in hotel, motel, and restaurant law. The student is introduced to the fundamental laws, rules, and regulations applicable to the hospitality industry. The case study approach is used to develop an awareness and understanding of the legal problems confronting the executive in his policy and decision making role.

HFT 3700 Fundamentals of Tourism (3). An introduction to the broad fields of travel and tourism. Among the topics covered are cultural tourism, sociology of tourism, tourism components and supply, tourism development, the economic role of tourism demand, and the marketing of tourism.

HFT 3713 International Travel and Tourism (3). An introduction to the complete international scope of travel and tourism. A brief analysis of regional framework and specific regions of the world, the interrelationship between human society and the physical environment. Tourism as a factor in economic development and its cultural and sociological factors are explored. An analysis of the international organization of tourism and the facilitation procedures required for its successful implementation are highlighted.

HFT 3722 Retail Travel Agency Management (3). An introduction to the basic operations aspect of travel agency management. The application of fundamental principles and successful practices in developing a satisfied clientele.

HFT 3727 Technical Agency Operations (3). Comprehensive, detailed course covering the technical procedures, practices and systems of day-to-day travel management, the counselling, sales and personal relationships with clients, hotels, tour agencies, and transportation systems. Prerequisite: HFT 3722.

HFT 3733 Creative Tour Packaging (3). A thorough study of the functions of the wholesale tour operation. Includes tour operations and development, sales methods used in selling group business, costing and contracting of group business, and in-depth study of the promotional aspects of tour packaging.

HFT 3753 Convention and Trade Show Management (3). A course concentrating on organizing, arranging and operating conventions, trade shows, and concessions. Emphasis will be placed on the modes and methods of sales used in booking conventions and trade shows, as well as the division of administrative responsibility in their operation.

HFT 3763 Passenger Traffic Management (3). A survey of land, water, and air transportation from an integrated, intermodal frame covering organization, operations, financing, research, regulation, economics, and certain social and political factors; as well as contributions made by each mode to the development of tourism.

HFT 3793 Sociology of Leisure (3). An introduction to the fundamental, psychological and sociological concepts and theories as they relate to the motivation behind travel and tourism.

HFT 3871 Beverage Management (3). An introduction to the identification, use and service of wines and other alcoholic beverages, with an in-depth analysis of the various elements of beverage operations including purchasing, control, merchandising, and bar management. Field trips are made to hotels and restaurants to demonstrate salient operating principles.

HFT 3872 Wine Technology, Merchandising, and Marketing (3). A course in the fundamentals of wine technology (viticulture and vinification methods). The major types of wine and the factors influencing their quality; principles of sensory evaluation; wine merchandising and marketing.

HFT 3900, 3905 Independent Studies (VAR). With permission from the Associate Dean, students may engage in independent research projects and other approved phases of independent study.

HFT 3941 Internship in Hospitality Management (3). Experience in all the major phases of hospitality operations. Reports are required.

HFT 3945 Advanced Internship in Hospitality Management (3). Structured management experience in a specialized career in the hospitality industry. Programs include: food and beverage management, rooms division management, sales management, in-flight catering management, fast food service management, and restaurant management. Structured management experience with an airline, a travel agency, a tour operator, or a cruiseline. Report required.

HFT 4223 Human Resources Development in the Hospitality Industry (3). A course designed to provide specific applications of proven training systems and methods for managers in the hospitality industry. The case study method will be used.

HFT 4224 Human Relations in the Hospitality Field (3). The problems faced by the supervisor and the executive in managing the human element in the hospitality field. Designed to give the student insight into the varied social and psychological factors present in any employee-employer relationship.

HFT 4234 Union Management Relations in the Hospitality Industry (3). A comprehensive course covering labor legislation, union history, and the day-to-day administration of the labor contract. Emphasis is placed on collective bargaining and the business relationships between union and management.

HFT 4276 Resort Management (3). A course designed to focus on the unique problems of resort hotel management and the application of special techniques to meet these problems.

HFT 4293 Restaurant Management Seminar (3). By permission of instructor only. A senior course reviewing current problems and practices, developing policies and procedures, and implementing same.

HFT 4404 Business and Industry Foodservice Management (3). Management systems, methods, and procedures related to the operation of foodservice and vended foodservice in plants and factories, office buildings, schools and colleges, and health care facilities. Both company and contracted operations.

HFT 4405 Recreational Food Service Management (3). Methods and systems of managing food service operations in recreational facilities, such as stadiums and coliseums, amusement parks, mutual (betting) facilities, state and national parks, and other recreational areas.

HFT 4413 Lodging Systems and Procedures (3). Detailed study of methods used in serving guests of a hotel. Contrasts traditions with modern systems. Extensive use of H.I.S. software with IBM PC-XT demonstrates 'state-of-art' concepts. Prerequisite: HFT 3423.

HFT 4455 Functions of the Hospitality Industry Comptroller (3). A specialized course designed for students desiring strong emphasis and training in the complex accounting and finance functions of hospitality industry management. Prerequisite: HFT 3453.

HFT 4464 Interpretation of Hospitality Industry Financial Statements (3). In-depth study of hospitality industry financial statements including consideration of the significant relationships between the various accounts found on financial reports. The statement of changes in financial position is studied, emphasizing funds as a means of payment. Major emphasis is placed upon trend analysis, ratio analysis, and comparison analysis using hospitality industry annual studies. Prerequisite: HFT 3453.

HFT 4474 Profit Planning and Decision-Making in the Hospitality Industry (3). Study of the decision-making process involved in the development of profit plans through analysis of hospitality industry studies. The establishment of short and long term goals and the means to reach these goals through profit plans. Emphasis on pricing decisions, responsibility centers, variance analysis, cost-volume profit analysis, capital budgeting, and tax considerations. Prerequisite: HFT 4464.

HFT 4485 Seminar in Tax Planning for the Hospitality Industry (3). Develops tax awareness and the ability to recognize the possible tax implications of business decisions. Tax considerations are studied for existing, expanding and planned hospitality operations. Included are compensation plans, pension and profit sharing plans, depreciation methods, acquisitions, mergers, liquidations, organization structure, accounting methods and capital gains and losses. Prerequisite: Permission of the instructor.

HFT 4604 Legislation and the Hospitality Industry (3). A study of the legislative requirements imposed upon hospitality industry operators. Special emphasis is placed on the minimum wage law, sales tax, uniform provision and maintenance, tip credit, and the determination of what constitutes hours worked for the various job categories, discrimination, and sexual harassment. Prerequisite: HFT 3603

HFT 4718 Implementation and Management of Tourism Projects (3). Practical development, implementation, and management of tourism projects and programs with emphasis on international and developing nation situations. Prerequisites: HFT 3700 and HFT 3793 or equivalent.

HFT 4880 In-Flight Food Service Management (3). An introduction to the concepts and managerial techniques specifically related to the in-flight food service segment of the hospitality industry. Students will be exposed to a comprehensive study of contract purchasing, contract negotiations, system menu planning, volume food production, staff scheduling, industry pricing methods, product specification factors, client and employee relations, and security control systems; and familiarized with specific and specialized food service equipment, equipment routing and balance, and transportation methods and procedures.

HFT 4936 Hotel Management Seminar (3). A senior course reviewing current problems and practices, developing policies and procedures, and implementing same. Prerequisite: Permission of instructor.

HFT 5476 Feasibility Studies for the Hospitality Industry (3). A survey of various theories and techniques available by which management may determine the financial feasibility of investments in the hospitality field. Prerequisites: HFT 3503 and HFT 4474.

HFT 5478 Restaurant Development (3). A study of the procedures to research and develop a restaurant form concept to opening. Emphasis will be on market research, site development, financial feasibility, and the formulation of an operating plan for an individual restaurant. Prerequisites: HFT 3503 and HFT 4474.

HFT 5495 Seminar in Hospitality Industry Financial Management Systems (3). Visits to various hospitality businesses for seminars with management team members. Lectures, demonstrations, and discussion of each operation's methods and procedures, with emphasis on accounting and control systems. Prerequisite: Permission of the instructor.

HFT 5595 Problems in Marketing (3). Teamwork analysis and recommended solution of an actual marketing problem which has been posed by a local operator. Prerequisite: HFT 3503.

HFT 5655 Franchising and Management Contracts (3). A comprehensive course designed to examine the franchise/franchisor — owner/manager relationships in hotel and food service operations and the mutual obligations created by each type of contract. Prerequisite: HFT 3603

HFT 5718 Quality Controls in Tourism (3). A study of contemporary social and human factors which influence actions and interactions between consumers and producers in tourism related industries. Prerequisite: HFT 3700. Corequisite: HFT 3722 or HFT 3753.

HFT 5719 Implementation and Management of Tourism Projects (3). Practical development, implementation, and management of tourism projects and programs with emphasis on international and developing nation situations. Prerequisites: HFT 3700 and HFT 3793 or equivalent.

HFT 5901, 5906, 5911 Independent Studies (VAR). With permission from the Associate Dean, students may engage in independent research projects and other approved phases of independent study.

HFT 6225 Multicultural Human Resources Management for the Hospitality Industry (3). A study of personnel and consumer relations in the hospitality industry within a multicultural, multiracial, and multiethnic society through an examination of value systems and cultural characteristics. Prerequisite: HFT 4224 or equivalent.

HFT 6226 Motivation and Leadership (3). Study of motivation, perception, learning, attitude formation, incentive theory, and job satisfaction, with emphasis on leadership and group task performance.

HFT 6227 Hospitality Management Training Systems (3). A course designed to provide applications of proven training systems and methods for managers in the hospitality industry. The case study method will be used.

HFT 6246 Organizational Behavior in the Hospitality Industry (3). A survey of the concepts of organizational behavior and industrial psychology theory, from both the research and practical points of view. The course is designed to assist students in making sound decisions in the hospitality area by making them sensitive to the organizational parameters which influence their decisions.

HFT 6256 International Hotel Operations (3). A consideration of various environments within which the international hospitality firm operates. Organizational, financial, and marketing factors are of major concern. Emphasis is placed on those problems and constraints which are uniquely different from problems of firms engaged in domestic operations of a similar nature.

HFT 6286 The Organization and Its Environment (3). A study of the hospitality industry as it is affected by its environment and in turn attempts to influence the various elements in this environment.

HFT 6296 Seminar in Hospitality Management (3). Attention is focused on major problems facing management in today's economy. Special emphasis is placed on the food service industry. Research of the current literature, class analysis, and discussion.

HFT 6297 Seminar in Management Methods (3). Class will be divided into small groups, each of which will meet regularly with the executive committee of an area hotel or restaurant. Each group will be, in reality, the junior executive committee for the property. The groups will come together periodically for analysis and discussion of their experiences, and to relate their experiences to principles of modern management.

HFT 6444 Hotel Information Systems (3). A seminar on computer systems and their applications within the hotel industry. An intensive study of a computerized property management system. All computer applications are examined, from reservations to the back office through a series of assignments and projects. Prerequisites: HFT 3423 or HFT 6446 and permission of instructor.

HFT 6446 Hospitality Industry Organizational Information Systems (3). An introduction to the general concepts and equipment that support information management by computer within the Hospitality Industry. Data file handling and other information management techniques are stressed. Students are first required to write application programs, then to complete a series of assignments utilizing application programs relating to guest cycle management on the school's computerized property management system.

HFT 6456 Operations Control (3). Focus is directed to the information used in the decision process and the information flow associated with each decision process throughout hotel or restaurant enterprises.

HFT 6477 Financial Management for the Hospitality Industry (3). A study of the principles of financial management and their application to the hospitality industry. Discussion and case studies are used to develop plans for meeting financial needs (short, intermediate, and long term) from internal sources or capital markets. Attention is focused on capital budgeting, leasing, franchising, mergers, consolidations, and current financial issues in the hospitality industry.

HFT 6486 Investment Analysis for the Hospitality Industry (3). Advanced investment methods and opportunities with emphasis on securities of the hospitality industry, financing techniques, syndication, negotiations.

HFT 6487 Taxation Federal and State (3). A study of state and federal taxation concepts, including tax management for individuals, partnerships, and corporations engaged in the hospitality field.

HFT 6494 Restaurant Information Systems (3). An in-depth study of principles relating to use of computer systems in the restaurant industry. The student is required to implement a simulated restaurant on two computer systems maintained by the school. This simulation includes personnel files, daily management, menu explosion and analysis, and inventory tracking. In addition, a research project will be assigned. Prerequisites: HFT 3423 or HFT 6446 and permission of instructor.

HFT 6586 Research and Statistical Methods (3). A study of basic research methodology as applied to a variety of hospitality industry research projects. Techniques for data collection and interpretation, and methods of reporting are considered.

HFT 6596 Marketing Management (3). Teamwork analysis and recommended solution of an actual marketing problem which has been posed by a local operator.

HFT 6605 Legislation and the Hospitality Industry (3). An advanced study of the legislative requirements imposed upon hospitality industry operators. Special emphasis is placed on the minimum wage law, sales tax, uniform provision and maintenance, tip credit, the determination of what constitutes hours worked for the various job categories, discrimination, and sexual harassment. Prerequisite: HFT 3603.

HFT 6697 Hospitality Law Seminar (3). New laws and their impact on the hospitality industry are examined. Students research and publish 'industry alert bulletins,' explaining the impact of new legislation on the hospitality industry. Prerequisite: HFT 3603 or equivalent.

HFT 6916 Hospitality Industry Project (3-9). An individualized research project dealing with current problems in the hospitality industry. Topics and research methods must be approved by the graduate faculty before registration for the course.

HFT 6946 Graduate Internship (3). Structured graduate management experience in a specialized career in the hospitality industry. Programs include: food and beverage management, rooms division management, sales management, in-flight catering management, fast food service management, and restaurant management. Prerequisite: Permission of the instructor.

School of Hospitality Management

Dean	**Anthony G. Marshall**
Associate Dean	**Rocco M. Angelo**

Faculty

Angelo, Rocco M., M.B.A. *(University of Miami), Associate Professor, Management and Associate Dean*

Beck, Robert A., Ph.D. *(Cornell University), Distinguished Scholar in Residence, Finance and Management*

Bellucci, Elio, J.D. *(Boston College), Associate Professor, Law*

Berkowitz, Leonard, B.A. *(University of Maine), Lecturer, Meat Sciences*

Burritt, M. Chase, B.S.*(Cornell University), Visiting Assistant Professor, Accounting*

Cassidy, Patrick, B.S. *(Florida International University), Visiting Lecturer, Wine Technology*

Dean, Edwin, Lecturer, *Union/Management Relations*

Dickson, Lee C., M.B.A., *(Babson College), Associate Professor, Management*

Goffe, Peter, M.S. *(Cornell University), Associate Professor, Marketing*

Gregg, Joseph B., M.S. *(Bridgewater State), Associate Professor, Management and Marketing*

Grier, David, Instructor, *Beverage Management*

Hagenmeyer, Fritz, G., M.A. *(Cornell University), Associate Professor, Hotel Engineering*

Haleblian, Albert J. B.S. C.P.A. *(Cornell University), Associate Professor, Accounting and Finance*

Haverly, Frederick, B.S. *(Cornell University), Lecturer, Management,*

Hurst, Michael E., M.A. *(Michigan State University), Professor, Management*

Huse, Richard A., M.S. *(Niagara University), Associate Professor, Tourism*

Ilvento, Charles L., M.B.A., C.P.A. *(Cornell University), Associate Professor, Accounting and Finance*

Kobasky, Michael, Ph.D., *(Florida State University), Director of Student Affairs*

Kotschever, Lendal, Ph.D., *(Columbia University), Professor, Management*

Marshall, Anthony G., J.D. *(Syracuse University), Professor, Law and Dean*

Moll, Steven V., M.S. *(Florida International University), Associate Professor, Accounting and Information Systems Management*

Moncarz, Elisa, B.B.A., C.P.A. *(Bernard/ Baruch College, City U. of New York), Associate Professor, Accounting and Finance*

Morgan, William J., Jr., Ph.D. *(Cornell University), Professor, Management*

Nichols, Charles, Lecturer, *Food Management*

O'Brien, William, M.S. *(Florida International University), Assistant Professor, Information Systems Management*

Parker, Alan J., Ph.D. *(Columbia University), Professor, Information Systems Management*

Portocarrero, Nestor, B.B.A. C.P.A. *(University of Miami), Associate Professor, Accounting and Finance*

Probst, Roger, B.S. *(University of New Haven), Lecturer, Food Management*

Ringstrom, Norman H., Ph.D. *(State University of Iowa), Professor, Management*

Robson, Kevin, M.S. *(Florida International University), Associate Professor, Food Management*

Stanford, William, Lecturer, *Food Management*

Talty, David M., B.S., *(Florida State University), Visiting Assistant Professor, Management.*

Tanke, Mary L., Ph.D. *(Purdue University), Assistant Professor, Management*

Vladimir, Andrew, M.S. *(Florida International University), Visiting Assistant Professor*

Warner, Mickey, M.S. *(Florida International University), Associate Professor, Food Management*

White, Theodore, B.S. *(Florida International University), Lecturer, Club Management*

Winns, Loris A., M.S. *(Florida International University), Instructor, Management*

School of Nursing

School of Nursing

The School of Nursing offers a professional program of study leading to the degree of Bachelor of Science in Nursing (BSN).

The School is accredited by the National League for Nursing and is approved by the Florida State Board of Nursing. It is open to generic and R.N. students. Upon graduation, generic students are eligible to write the State Board examination to become registered nurses.

The School also offers a certificate program in Advance Nursing Practice in Adult Health. This program qualifies the student to apply for ARNP licensure in Florida.

Program Objectives

Upon completion of the program, graduates will be able to:

1. Synthesize knowledge from the natural and the behavioral sciences, the humanities and nursing in the provision of nursing care to clients throughout the life span.
2. Analyze research findings from nursing and other disciplines to improve and change nursing practice.
3. Evaluate nursing theories and concepts from other disciplines as a base for nursing practice.
4. Utilize the nursing process to promote, maintain and restore health and rehabilitate, and prevent illness of individuals, families and communities in a changing multicultural, global society.
5. Analyze legal, ethical, social, political, and economic forces which impact on the emerging role of the professional nurse.
6. Collaborate with members of the health care team in the delivery of individualized, economic and ethical health care services with accountability and responsibility for own practice.
7. Utilize creative leadership to promote quality health care in a changing, multicultural, global society.
8. Value learning as a lifelong process through independent pursuit of personal and professional growth.

Degree: **Bachelor of Science in Nursing (BSN)**

Admission Requirements

Applicants to the School must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be admitted to the University before admission to the School. R.N. students must be licensed or eligible for graduate nurse (G.N.) status at the time of application, (Florida Statute 464.01)

All necessary admission documents must be submitted by April 1 of each year preceding the Fall Term admission or October 15 of each year preceding the Spring Term admission. Students interested in the nursing major should contact the School to make an appointment with an academic advisor as soon as possible. The School of Nursing is located on the North Miami Campus, telephone: (305) 940-5915. In addition, an RN-BSN completion program is offered at the Broward Center in Davie, telephone (305) 948-6747 (Miami number), or (305) 474-1402 (Broward number).

To be admitted to the program, applicants must have an overall GPA of 2.5 or higher, have met all the lower division requirements including CLAST, completed sixty semester hours, and be recommended for admission by the Nursing Admission Committee. The nursing program is selective. Limitations are set on enrollment on the basis of availability of qualified faculty, classroom and laboratory facilities, and clinical resources for student experiences.

Lower Division Preparation

The following courses are required for admission to the nursing major:

1.	Introduction to Statistics	3
2.	Natural Sciences:	
	General Chemistry	4
	Organic Chemistry	4
	Human Anatomy/Physiology	6
	General Bacteriology or Microbiology	4
3.	Social Science:	
	Introductory Sociology	3
	Introductory Psychology	3
	Language Elective	5
4.	Nutrition for Health Professional	3
5.	Human Growth & Development	3

Scholastic Requirements: To remain in good academic standing students must:

1. Maintain an overall cumulative GPA of 2.25 or higher.

2. Achieve a grade of 'C' or higher in the science and nursing courses. A student who earns less than a 'C' in any nursing course will be required to repeat the course in order to progress in the nursing program. A student may repeat the course one time only. No more than two nursing courses can be repeated in order to remain in the program.

3. Required Examinations: In addition to the University requirements (CLAST), the School requires also the following:

a. RN's are required to complete selected equivalency examinations. (See RN - BSN Guidelines).

b. Generic students are required to pass specific nursing achievement examinations (To be announced at the beginning of each academic term). In addition, generic students are required to pass also a nursing synthesis (exit) exam as a prerequisite to the BSN degree. (This examination is usually given during the last semester of the program in the Senior Seminar courses.)

c. For educational research purposes, certain standardized examinations may be administered at selected points in the nursing curriculum

4. The School reserves the right to terminate a student from the nursing program for reasons related to the inability to safely carry out professional responsibilities.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Required Nursing Courses:

Junior Year

Semester I

NUR 3118C	Approaches to Nursing I	6
NUR 3066C	Approaches to Nursing IB	3
NUR 3825	Professional Nursing I	2
Elective		3

Semester II

NUR 3255C	Approaches to Nursing IIA	4
NUR 3534C	Approaches to Nursing IIB	3
NUR 3826	Professional Nursing II	2
NUR 3145	Pharmacology	2
SSI 3240	World Prospects and Issues	3

Semester III

NUR 3259C	Approaches to Nursing IIIA	4
NUR 3538C	Approaches to Nursing IIIB	3
NUR 3115	Professional Nursing III	2
NUR 3125	Pathophysiologic Basis of Nursing	3

Senior Year

Semester I

NUR 4457C	Approaches to Nursing IVA	4
NUR 4357C	Approaches to Nursing IVB	4
NUR 4165	Professional Nursing IV	3
Elective		3

Semester II

NUR 4636C	Approaches to Nursing V	4
NUR 4945L	Approaches to Nursing VI	4
NUR 4895	Professional Nursing V	2
Nursing Elective		2/3

ARNP Certificate Program in Adult Health

A student who has earned a BSN degree and is a registered nurse in Florida may be considered for admission to the ARNP certificate program. The student must meet the University requirements and must have completed one year of nursing experience. Admission requirements are (1) a BSN degree, which includes a physical assessment course; (2) 3.0 GPA or individual determination; (3) current RN licensure and CPR certification; and (4) a physical examination including measle titre.

Before starting the admission process, the RN is encouraged to make an appointment with a nursing academic advisor to determine his or her status. The student is encouraged to bring a personal copy of all transcripts of previous college courses to assist in the advisement process. An appointment can be made by calling 940-5915.

Completion of the certificate program will qualify the student to apply for ARNP licensure in Florida. This is a full time nursing program that requires a minimum of twenty four hours per week in addition to study time. The certificate is designed to be completed in two academic terms. Classes are held one late afternoon and early evening each week. Field work times are flexible.

A minimum of 30 credit hours must be earned to received the certificate.

Required Courses: Please consult the Department

Course Descriptions

Definition of Prefixes

NUR - Nursing Practice and Theory

NUR 3066C Approaches to Nursing I B: Client Assessment (3). The assessment and evaluation of alterations in physiologic adaptive responses of the adult/gerontological client to stressors are emphasized. Prerequisite: Admission to major. Corequisite: NUR 3118C.

NUR 3118C Approaches to Nursing I (6). Introduction to the Nursing Process and Nursing Care of individuals throughout the life span within the health-illness continuum with special focus on the promotion of optimum wellness. Prerequisite: Admission to the program. Corequisite: NUR 3825.

NUR 3125 Pathophysiologic Basis of Nursing Practice (3). The body's adaptive responses to selected physical, chemical, and biological stressors are presented as a base for nursing diagnoses, interventions, and evaluations. Prerequisites: NUR 3145, NUR 3066, NUR 3118C. Corequisites: NUR 3259, NUR 3538.

NUR 3145C Pharmacologic Basis for Nursing Practice (2). Focus is on clinical pharmacology including development and control of drugs and drug therapies, general principles or specific drug actions and the body's physiologic response to drug administration. Prerequisite: NUR 3118C, NUR 3066. Corequisites: NUR 3255, NUR 3534

NUR 3255C Approaches to Nursing II A: Adult/Gerontological Physiological Nursing I (4). The nursing process is applied in assisting the adult/gerontological client with minimally to moderately impaired physiological adaptive responses. Prerequisites: NUR 3118C, 3066, 3825. Corequisites: NUR 3826, NUR 3145.

NUR 3259C Approaches to Nursing III A: Adult/Gerontological/Physiological (4). The nursing process is applied in assisting adult/gerontological clients with moderate to severe adaptive alterations or terminal conditions, including the effects of family. Prerequisites: NUR 3255, NUR 3826. Corequisites: NUR 3538, NUR 3827.

NUR 3534C Approaches to Nursing IIB: Psychiatric/Mental Health Nursing (4). Application of the Nursing Process to the care of individual, families, and groups within the health-illness continuum with special focus on changing psychosocial situations. Prerequisites: NUR 3118C, NUR 3825. Corequisites: NUR 3137, NUR 3137L, NUR 3826.

NUR 3538C Approaches to Nursing III B: Adult/Gerontological Psychological Nursing II (3). The nursing process is applied in assisting the adult/gerontological client and his family with moderately to severely impaired psychological responses. Prerequisites: NUR 3534, NUR 3826. Corequisite: NUR 3259, NUR 3827.

NUR 3825 Professional Nursing I : Socialization (2). Socialization into the role of professional nursing is introduced. The teaching-learning process is explored with emphasis on the student's responsibilities as an independent learner. Prerequisite: Admission to the program. Corequisite: NUR 3118C.

NUR 3826 Professional Nursing II: Legal, Ethical and Cultural Consideration (2). This course continues to address professional dimension in nursing. Emphasis is on legal, ethical, and cultural considerations using group dynamics. Prerequisites: NUR 3118C; PCB 4701; NUR 3825. Corequisite: NUR 3137.

NUR 3827 Professional Nursing III: Leadership (2). This course is designed to provide a forum for students to analyze and critique the leadership role of the professional nurse in a variety of health care settings within a multicultural, changing global society. Prerequisites: NUR 3538, NUR 3356.

NUR 4075 Transcultural Issues and the Nurse (2). The course is designed to guide the student into direct relationships with individuals of ethnic and racial differences, and to facilitate the development of a therapeutic relationship.

NUR 4165 Professional Nursing IV : Research (3). Interrelationship of problems solving, decision making, change and the nursing process are explored in identifying the role of the professional nurse as research consumer. Prerequisite: NUR 3125.

NUR 4357C Approaches to Nursing IV B: Childrearing (4). The nursing process is applied in assisting childrearing families exhibiting moderately to severely impaired adaptive responses. Prerequisites: NUR 3538, 3259. Corequisite: NUR 4457.

NUR 4432 Approaches to Nursing V: Community Nursing (4). Building upon all professional roles of the nurse, synthesis and evaluation of the nursing process is utilized in assisting individual families and communities in a primary setting. Prerequisites: NUR 4357, 4457, NUR 4165. Corequisite: NUR 4895.

NUR 4457C Approaches to Nursing IV A: Childbearing (4). The nursing process is applied in assisting childbearing families exhibiting moderately to severely adaptive alterations. Prerequisites: NUR 3538, 3259, NUR 3827. Corequisite: NUR 4357.

NUR 4636C Approaches to Nursing VI: Community Health Nursing (4). Evaluation of the nursing process to the care of individuals, families, and groups within the health-illness continuum with special focus on the community and health care systems. Prerequisites: NUR 4165; NUR 4424. Corequisite: NUR 4945.

NUR 4895 Professional Nursing V: Senior Seminar (2). Professional issues related to nursing as an autonomous professional practice are investigated. Focus is on the transition from student to beginning generalist nurse role. Prerequisite: NUR 4457, NUR 4357, NUR 4165. Corequisites: NUR 4945, NUR 4636C.

NUR 4945L Approaches to Nursing VII: Leadership Practicum (4). Transition from student to graduate role is provided through leadership experience in an elected setting which allows synthesis of knowledge, skills, and understandings. Assessment of nursing care modalities are emphasized. Prerequisites: NUR 4165; NUR 4424. Corequisite: NUR 4636C.

School of Nursing

Dean **Linda Agustin Simunek**

Faculty

Belock, Shirley A., R.N., Ed.D. *(Nova University), J.D. (University of Miami), Professor and Associate Dean*
Blais, Kathleen, R.N., Ed.D. *(Florida Atlantic University), Assistant Professor*
Ferris, Lorene, R.N., Ed.D. *(University of Miami), Professor*
Hartley, Jacqueline, R.N., Ph.D. *(Florida State University), Associate Professor*
Krimsley, Valerie, R.N., M.A. *(New York University), Assistant Professor*
Lizardo, Maria Lourdes, R.N., ARNP, M.N. *(University of the Philippines), Assistant Professor*
Lobar, Sandra, R.N., M.S.N. *(Barry University), Instructor*
Northrop, Celeste, R.N., D.N.Sc. *(Catholic University of America), Assistant Professor*
Phillips, Suzanne, R.N., M.S., *(University of Utah), Assistant Professor*
Safian-Rush, Donna, R.N., ARNP, M.S.N. *(University of Miami), Assistant Professor*
Shah, Daphne, R.N., M.S.N. *(Loma Linda University), Assistant Professor*
Simunek, Linda Agustin, R.N., Ph.D. *(Loyola University of Chicago), J.D. (University of Miami), Professor and Dean*
Spall, James, R.N., ARNP, M.S.N. *(Yale University), Instructor*
Thornton, Ross N., R.N., MPH *(Florida International University), Academic Advisor*

School of Public Affairs and Services

School of Public Affairs and Services

The School of Public Affairs and Services offers programs of professional study which provide academic and applied courses for students interested in public and non-profit organizational needs, management, and research. Emphasis is placed on achieving a comprehensive, developmental, and community oriented understanding of problems, issues, alternatives, and needs of an urban society faced with rapidly changing social, political, economic, and cultural conditions.

The School is organized into the Departments of Criminal Justice, Health Services Administration, Medical Record Administration, Public Administration, and Social Work. Each of these Departments except Medical Record Administration offers both the baccalaureate and master's degrees. Medical Record Administration offers only the baccalaureate degree. In addition, a Master's Degree is offered in Public Health and a Doctor in Philosophy (Ph.D.) is offered in Public Administration.

Admission

Applicants to the School must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the School.

Bachelor Degrees

Undergraduate Admission Requirements: Policies on admissions and prerequisites for the undergraduate programs are described in the appropriate departmental sections of this catalog.

Advisement: Each student is assigned a faculty advisor upon being admitted to a program and together they plan the student's program of study. Students needing pre-advisement should contact the specific department.

Clinical and Field Experiences: As an integral part of the program curriculum, the student may be provided supervised learning experiences in community service agencies. The clinical and field work experience is one of orientation, observation, and practice in the particular program specialty of Public Affairs and is structured concurrently with relevant classroom experiences. Numerous community organizations provide opportunities for student internships and field practices.

Continuing Education and Special Programs: The School of Public Affairs and Services, in cooperation with the Division of Continuing Education, offers many credit, non-credit, and workshop courses in Off-Campus locations in Dade, Broward, and Monroe Counties. Courses and locations vary each semester and the departments should be contacted for specific offerings.

Graduate Degrees

Graduate Admissions Requirements: Policies on admissions and prerequisites for the graduate programs are described in the appropriate departmental sections of this catalog. At a minimum, a student planning to enroll in one of the graduate degree programs in SPAS must:

1. Meet the general University requirement for admission to a graduate program.
2. Hold a bachelor's degree from a regionally accredited college or university.
3. Meet the minimum requirements of a 3.0 GPA in upper-division grades or a minimum score of 1000 on the Graduate Record Examination entrance examination, or both.
4. In addition to the above, a foreign student whose native language is not English must present a minimum score of 500 on the TOEFL, or equivalent score on a comparable examination. See General Admissions Requirements for International Students in the General Information section of this catalog.

Degree Requirements: To be eligible for a master's degree within the SPAS, a student must:

1. Satisfy all University requirements for a master's degree.
2. Meet the requirements for an approved program of study. This program of study must be approved by the appropriate Department Director.
3. Earn a minimum GPA of 3.0 in all work completed in the student's graduate program of study.
4. Earn a minimum grade of 'C' in all program courses to be eligible for graduation. A student must repeat all courses in which a grade of 'D' or 'F' was received, and earn minimum grades of 'C.'

Transfer Credit: The student may request and receive permission to transfer graduate credit to his or her master's degree program, provided that:

1. The hours requested do not exceed the maximum hours allowed by the Department.
2. The transfer courses were taken at the graduate level at an accredited college or university.
3. Grades of 'B' or higher were earned.
4. The courses are judged by the Department Director to be relevant to the student's graduate program.
5. The credits are transferred the same semester the student is admitted to the graduate degree program.
6. The credits were not used in satisfying the requirements for another degree, or included in another degree.
7. The credits were completed within six years preceding the admission to the graduate degree program.

Time Frame for Completion of Degree: All work applicable to the master's degree requirements, including transfer credit, must be completed within six years immediately preceding the awarding of the master's degree.

SPAS Graduate Level Courses: The 5000-level courses are open to graduate students and to undergraduate seniors with permission of the instructor.

The 6000-level courses are open only to graduate students.

The 7000-level courses are open only to doctoral students.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Criminal Justice

W. Clinton Terry, *Associate Professor and Acting Director*
Robert Clark, *Professor*
Jose Marques, *Associate Professor*
Luis Salas, *Professor*
Dale Sechrest, *Assistant Professor*
Regina Shearn, *Associate Professor*
Robert Snow, *Associate Professor*
Ray Surette, *Associate Professor*
William Wilbanks, *Professor*

Criminal Justice is an area of study dealing with the formal mechanisms of social control by which our society exercises constraint over its members. The study of criminal justice is an interdisciplinary one; i.e., it involves law and the social and behavioral sciences. It involves the study of crime, the reaction of society to this major social issue, and the means utilized in treating the problem.

A variety of career opportunities are available in criminal justice at all levels of government and the private sector. Due to its interdisciplinary approach, the study of criminal justice fills the needs of students seeking careers in teaching, research, law, and the components of the criminal justice system.

Degree: **Bachelor of Science**

Lower Division Preparation

Students majoring in Criminal Justice should consult with an academic advisor to ensure that the actual courses selected meet program and degree requirements, and are consistent with the long range academic and career objectives.

Recommended Courses: Students intending to enroll in the Criminal Justice program are urged to complete an Associate of Arts degree at the lower division. Entering students are not required to have been enrolled in a pre-criminal justice program. Students having an Associate of Science degree or 60 semester hours will also be accepted, but must complete general education requirements before the bachelor's degree can be awarded.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Core Courses: Six courses are required of every student in Criminal Justice. A core course requirement can only be waived by the Director with the recommendation of the student's faculty advisor.

CCJ 3011	Nature and Causes of Crime	3
CCJ 3101	Law Enforcement Systems	3
CCJ 3290	Judicial Policy Making	3
CCJ 3300	Correctional Philosophy, Theory and Practice	3
CCJ 3700	Methods of Criminal Justice Research	3
CCJ 4252	Criminal Justice and the Constitution	3

Area of interest: Eighteen semester hours at the 3000-level or above in criminal justice are required for criminal justice majors. Only nine semester hours of CCJ 4940 will count toward this requirement.

Specific electives: Nine semester hours at the 3000 level are required in sociology-anthropology, social work, psychology, political science, computer science, public administration, or statistics. Any combination of these courses is acceptable.

General electives: Fifteen semester hours are required. No more than nine hours can be criminal justice courses. Relevancy of elective courses will be determined in consultation with the student's advisor or the Director. The faculty retains the prerogative to accept or reject electives taken without approval.

Remarks: Independent study and directed readings courses may not be taken outside of the Criminal Justice Department except with written permission of the Criminal Justice Director.

Coursework from disciplines outside of Criminal Justice will not be accepted to fulfill requirements in the Criminal Justice area of interest category. Students are required to maintain a minimum GPA of 2.0 in the CCJ Area of Interest and a minimum grade of 'C-' in each of the CCJ Core Courses. Criminal Justice majors are advised to complete all core requirements in the early stages of semester study in order to insure completion for graduation. Transfer Credit: A student transferring from a four year college may transfer up to 84 semester hours into the Criminal Justice Program; however, the student must still have at least 60 semester hours at the 3000-level or above. All work transferred to FIU is subject to review and approval by the Criminal Justice Director. Criminal Justice courses completed with a grade of 'D' will not be transferred.

Double Majors and Degrees
Students must complete the core courses (18 hours) plus 18 additional hours in Criminal justice in order to:

1. Satisfy Criminal Justice requirements for a double major
2. Obtain a second degree with a major in Criminal Justice
3. Obtain two baccalaureate degrees simultaneously (provided requirements for two majors have been completed as certified by the appropriate academic units, and a minimum of 30 appropriate semester hours beyond the requirements of one degree have been earned).

Minor in Criminal Justice

A five course minor in criminal justice is available to baccalaureate degree-seeking students who are interested in careers in the criminal justice field. The courses that comprise the minor will provide students with the opportunity to relate to the special concerns of law enforcement, corrections, and the judicial systems. The minor is available on both campuses.

Requirements: Fifteen semester hours in criminal justice. The classes are to be selected from the following course list.

CCJ 3011	Nature and Causes of Crime	3
CCJ 3020	An Overview of Criminal Justice	3
CCJ 3101	Law Enforcement Systems	3
CCJ 3271	Criminal Procedure	3
CCJ 3290	Judicial Policy Making	3
CCJ 3291	Judicial Administration - Criminal	3
CCJ 3300	Correctional Philosophy, Theory and Practice	3
CCJ 3302	Correctional Treatment Programs	3
CCJ 3320	Community Based Treatment	3
CCJ 3341	Offender Counseling	3
CCJ 3450	Institutional Organization and Administration	3
CCJ 3460	Human Resources in Criminal Justice	3
CCJ 3461	Developing Interpersonal Communication	3
CCJ 3470	Criminal Justice Planning	3
CCJ 3501	Juvenile Delinquency, Prevention and Control	3
CCJ 3700	Methods of Criminal Justice Research	3
CCJ 3934	Contemporary Issues in Criminal Justice	3
CCJ 4032	Crime and the Media	3
CCJ 4130	Police and the Community	3
CCJ 4252	Criminal Justice and the Constitution	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4282	Legal Issues in Corrections	3
CCJ 4331	Probation, Parole, and Community Programs	3
CCJ 4440	Administration of Correctional Institutions	3
CCJ 4453	Methods of Institutional Change	3
CCJ 4462	Human Relations Training	3
CCJ 4630	Criminal Justice: The International Perspective	3
CCJ 4661	Terrorism and Violence in Criminal Justice	3
CCJ 4662	Criminal Justice and the Minority Community	3
CCJ 4663	Women, Crime, and the Criminal Justice System	3

Graduate Program

The Master of Science degree program in Criminal Justice is a professional program designed to prepare students for management responsibilities in the Criminal Justice sector or public sector related activities.

The objectives of the master's program are:

1. To provide present and future Criminal Justice managers with the skills needed to function effectively in our ever-changing society.
2. To serve as a catalyst for interdisciplinary research and study of Criminal Justice and related problems.
3. To provide the Criminal Justice system with qualified students for academic careers in administration, planning and analysis, and teaching in colleges and universities.

Students having a bachelor's degree from an accredited institution and either a 'B' average or higher for the last two years of undergraduate work, or a total score of 1000 on the Graduate Record Examination (verbal and quantitative) are eligible for admission to the program. All applicants must complete the GRE prior to full admission status. A maximum of 12 semester hours may be taken as a non-degree seeking student. This status does not guarantee admission to the degree program.

Degree: **Master of Science**

Degree Credit Requirements: The Master's degree in Criminal Justice requires (36) semester hours of credit. A maximum of (6) semester hours not included in another degree may be transferred into the program from an accredited institution, subject to the approval of the Graduate Admissions Committee. Candidates have the option of two programs of study, i.e., the thesis and non-thesis options. Those selecting the thesis option are required to complete 30 semester hours of course work and six semester hours of thesis. The non-thesis option consists of 36 semester hours of coursework. All candidates must take six core courses.

Specific Program Requirements: Six courses in Criminal Justice are required and the remaining courses are electives, two of which may be thesis requirements, and two may be taken outside of Criminal Justice if no courses have been transferred into the program from another degree program.

Core Courses: (18 semeste hours)

CCJ 5288	Legal Issues for Criminal Justice Administrators	3
CCJ 6025	Theory in Administration of Justice	3

CCJ 5105	Police Organization, Behavior, and Administration	3
CCJ 5285	Judicial Process and Policy	3
CCJ 5445	Corrections and Correctional Management	3
CCJ 6705	Advanced Research Methods	3

Electives: (18 semester hours)

CCJ 5056	History and Philosophy of Criminal Justice	3
CCJ 5216	Criminal Law	3
CCJ 5235	Criminal Procedure	3
CCJ 5286	Comparative Law	3
CCJ 5387	Legal Aspects of Corrections	3
CCJ 5605	Deviance and Social Control	3
CCJ 5525	Seminar in Juvenile Delinquency	3
CCJ 5669	Minorities in Justice Administration	3
CCJ 5935	Special Topics	3
CCJ 6456	Administration and Management of CCJ Agencies	3
CCJ 6665	Victimology and Criminal Justice System	3
CCJ 6706	Applied Statistical Techniques for CCJ	3
CCJ 6716	Planning and Program Evaluation	3
CCJ 6915	Directed Individual Graduate Study in Criminal Justice	3
CCJ 6945	Field Research in CCJ	3
CCJ 6971	Thesis Research Prospectus	5
CCJ 6976	Masters Thesis Defense	4

Additional Procedures: Thesis tract students will select a committee of three graduate faculty members, the student's major faculty advisor being a member and Chairperson of this committee. The major advisor and committee will be responsible for overseeing the student's work while in the master's program. Admission to the program should not be construed as admission to candidacy for a degree. Students may apply for candidacy upon completion of 15 semester hours.Admission to candidacy should be completed before the student enrolls for the last 12 hours.

Graduation Requirements: To receive the Master's degree in Criminal Justice, a student must satisfy all University regulations governing graduate study. Students in the thesis track must be admitted to candidacy and complete the six core courses, four electives, and the two thesis courses. The student may be required to undergo an oral discussion of the thesis. Students in the non-thesis track must be admitted to candidacy and complete the six core courses and six electives. A minimum GPA of 3.0 is required.

Course Descriptions

Definition of Prefixes

CCJ—Criminology and Criminal Justice.

CCJ 3011 The Nature and Causes of Crime (3). Social, cultural, behavioral, political, and economic causative factors in the development of crime. Psychological and sociological considerations involved in criminal behavior.

CCJ 3020 An Overview of Criminal Justice (3). A survey of the agencies and process involved in the administration of justice. Interrelationships and functions of the legislative, police, prosecutor, defender, courts, and corrections are examined. (This course is suggested for non-majors and entering students without a criminal justice background.)

CCJ 3101 Law Enforcement Systems (3). A conceptual study of the American police system.

CCJ 3271 Criminal Procedure (3). An in-depth study of the 4th through 8th Amendments of the Constitution, and their impact on the criminal justice process.

CCJ 3290 Judicial Policy Making (3). An analysis of judicial systems and their legal, social, and political environments. Interrelationships between the prosecutorial and other criminal justice substructures will be examined.

CCJ 3291 Judicial Administration-Criminal (3). Study of the rules of criminal procedure and evidence affecting the responsibilities of court administrators. Administrative relationships of courts with agencies involved in the criminal justice system will be examined.

CCJ 3300 Correctional Philosophy, Theory and Practice (3). Appraisal of correctional methods, utilized in the United States and other countries. Prisons, probation, parole, work-release programs, halfway houses, community-based correction programs and other techniques are analyzed.

CCJ 3302 Correctional Treatment Programs (3). A concentrated study of the various institution- based treatment programs. Emphasis is on the impact and operational aspects of these programs.

CCJ 3320 Community Based Treatment (3). An examination of the various pre-trial and post- trial community based treatment programs. A special emphasis will be placed on the impact these programs have upon the criminal justice system and the clients they serve.

CCJ 3341 Offender Counseling (3). A course designed to explore the nature and function of counseling within the correctional setting.

CCJ 3450 Institutional Organization and Administration (3). Analysis of internal organizational structure and executive roles and functions in criminal justice agencies. Examines administrative and managerial concepts underlying decision making, policy formulation, operational strategies, and coordination and control procedures.

CCJ 3460 Human Resources in Criminal Justice (3). Analysis of criminal justice manpower input problems recruitment, selection, placement, training, development, and control at all levels. Emphasis is on policy issues, research findings, and advanced techniques.

CCJ 3461 Developing Interpersonal Communication (3). The emphasis of this course is on the development of interpersonal communication practices that can be effectively utilized in a helping role and on the job, to improve interaction among employees and between the employees and the public.

CCJ 3470 Criminal Justice Planning (3). Planning methods applicable to criminal justice agencies are examined. Emphasis is on planning as a decision making process for criminal justice agencies. Theories, techniques, and applications studied.

CCJ 3501 Juvenile Delinquency, Prevention and Control (3). Social dimensions of juvenile delinquency, its nature, scope and distribution. Comparison and analysis of agencies of control and prevention.

CCJ 3700 Methods of Criminal Justice Research (3). Elements of scientific perspective, interaction of research theory and practice. Research design, data collection, analytic and statistical techniques, use of data processing resources, and preparation of research reports are covered.

CCJ 3934 Contemporary Issues in Criminal Justice (3). An extensive examination of selected contemporary issues in criminal justice. May be repeated.

CCJ 3949 Cooperative Education in Criminal Justice (3). Supervised full time semester work for criminal justice academic majors who demonstrate their interest in and potential for developing practical field agencies experience. Limited to students admitted to Co-op program with consent of advisor. Prerequisite: Second semester academic standing.

CCJ 4032 Crime and the Media (3). This course will explore the relationship between the media, crimes, criminals, and the Criminal Justice System. Specifically, the impact of the media on the operation of the C.J.S. will be reviewed.

CCJ 4130 Police and the Community (3). A study of the concept of policy-community relations, emphasizing the police role in community tension and conflict.

CCJ 4252 Criminal Justice and the Constitution (3). A study of constitutional issues as they relate to the administration of criminal justice. Emphasis shall be placed upon the case method of study and the establishment of precedent.

CCJ 4280 Law and Criminal Justice (3). The resolution of criminal justice problems through the application of the law. The nature, sanctions, and limits of law, categories of law, and schools of jurisprudence are reviewed.

CCJ 4282 Legal Issues in Corrections (3). This course addresses the investigation of legal problems of prisoners, from conviction to release. Emphasis will be placed on the legal problems involved in pre-sentence investigations, sentencing, probation, parole, incarceration, and loss and restoration of civil liberties.

CCJ 4331 Probation, Parole and Community Programs (3). An examination of the treatment of convicted law violators by the correctional field services, before and after prison.

CCJ 4440 Administration of Correctional Institutions (3). An examination of theories and techniques of administering correctional institutions, treatment, security, and custody, social structure of the prison community and inmate social systems.

CCJ 4453 Methods of Institutional Change (3). Analysis of evolutionary and revolutionary changes in political institutions and agencies. Means, methods, and techniques for initiating and implementing meaningful change within the criminal justice system are discussed.

CCJ 4462 Human Relations Training (3). An experience based course that will prepare selected students to present human relations training programs in criminal justice agencies.

CCJ 4630 Criminal Justice: The International Perspective (3). A critical comparative study of various American criminal justice subsystems with those of selected foreign countries, including discussion of administration, organization, objectives, principal functions, and levels of control.

CCJ 4640 Organized Crime (3). An intensive study of the secret, conspirational activity that eludes the legal apparatus of criminal law enforcement.

CCJ 4660 Crime and the Schools (3). An examination of the crime problem in the schools. The course will include crime prevention programs utilized by schools, the nature and extent of crimes committed against students and faculty, crime against the schools (arson and vandalism), and efforts to teach students about the law. Attention will also be given to the process by which student offenders are disciplined/punished.

CCJ 4661 Terrorism and Violence in Criminal Justice (3). An analysis of terrorism and violence in criminal justice. Law and other control mechanisms will be examined.

CCJ 4662 Criminal Justice and the Minority Community (3). A general survey of the institutions of justice in the United States and their contacts with minority people. The focal point of this course will be the role of racial/ethnic minorities in the criminal justice system.

CCJ 4663 Women, Crime and the Criminal Justice System (3). Women as deviants, criminals, victims, and professionals in the criminal justice system.

CCJ 4752 Introduction to Legal Research (3). Introduction to legal research, its scope, theory, and practice. Materials and methods used for specific research goals.

CCJ 4900 Directed Readings in Criminal Justice (1). Extensive reading and analysis of selected literature under faculty supervision. Permission of instructor and Program Director required. One credit per semester with a 3 credit cumulative maximum.

CCJ 4910 Independent Research (1-3). A course designed to provide qualified students with the opportunity to perform meaningful research in areas of criminal justice under the direction of a faculty member. Permission of instructor required. (6 credits cumulative maximum).

CCJ 4940 Field Work and Special Projects (1-12). A course designed to broaden the experiential base, and application of theoretical content to the criminal justice field. Advisor's approval required. (Pass/ Fail grading)

CCJ 4949 Cooperative Education in Criminal Justice (1-3). Supervised full time work semester for criminal justice academic majors who demonstrate their interest in and potential for developing practical field agencies experience. Limited to students admitted to Co-op Program with consent of advisor. Prerequisite: Senior academic standing.

CCJ 5056 History and Philosophy of Criminal Justice (3). The historical and philosophical background of criminal justice is presented as a basis for a more analytical understanding of the problems and prospects of criminal justice organization, management, and behavior.

CCJ 5105 Police Organization, Behavior, and Administration (3). Analysis of the organization and administration of police departments and their effects on police behavior. CCJ 5216 Criminal Law (3). A concentrated study of the substantive criminal law based on concepts, statutes, and cases that are enforced in state and federal courts.

CCJ 5216 Criminal Law (3). A concentrated study of the substantive criminal law based on concepts, statutes, and cases that are enforced in state and federal courts.

CCJ 5235 Criminal Procedure (3). A case study of major legal cases dealing with criminal procedure in the United States. No prerequisites.

CCJ 5285 Judicial Process and Policy (3). The functions, roles, and interactions of decision makers will be analyzed and evaluated. The policy decisions and processing of criminal cases within the judicial system will be examined.

CCJ 5286 Comparative Law (3). An analysis of the major legal families of the world. Emphasis shall also be given to legal families which are becoming more important as colonialism comes to a close.

CCJ 5288 Legal Issues for Criminal Justice Administration (3). The course will focus on a basic understanding of administrative law and procedures in the American system. Topics will include the methods and limitations of the administrative process as it is developing in the American legal system.

CCJ 5387 Legal Aspects of Corrections (3). A study of the contemporary legal rights of convicted offenders, including the impact of litigation on offenders, correctional agencies personnel and operations, and other justice agencies. Case law and statutes will be reviewed within the context of the punishment and/or rehabilitation of the offender.

CCJ 5445 Corrections and Correctional Management(3). The course focuses on current critical issues and problems in the management of adjudicated offenders in correctional systems. The organization and administration of community and institutional corrections agencies will be reviewed and their performance analyzed.

CCJ 5525 Seminar in Juvenile Delinquency (3). Focuses on the nature, scope and causes of delinquency; considers problems of the assessment and measurement of delinquency. The philosophy, procedures, and effectiveness of the juvenile courts will be examined, including abuse, dependency, neglect, delinquency, and family law.

CCJ 5605 Deviance and Social Control (3). This course will cover the major theoretical issues and ideas concerning deviant and criminal behavior and methods of socially controlling these behaviors.

CCJ 5669 Minorities in Justice Administration(3). Focuses upon the disparity in outcomes for minority groups (i.e. racial/ethnic/sexual). across the criminal justice system, and on alternative explanations for those differences in outcome. Also, issues related to the hiring and promotion of minority groups who work in the criminal justice system will be discussed.

CCJ 5935 Special Topics (3). An intensive analysis of a particular topic in Criminal Justice not otherwise offered in the curriculum. Topics may change each term, but may include organized crime, white collar and political crime, victimology, ethics, terrorism, sentencing, information systems, and other topics based on student interest or current concern. May be repeated. Prerequisite: Graduate Standing.

CCJ 6025 Theory in Administration of Justice (3). The study of theoretical and research issues related to the nature and causes of crime and the administration of justice.

CCJ 6456 Administration and Management of Criminal Justice Agencies (3). An examination of the criminal justice system from the perspective of administrative and management theory. Emphasis is upon the identification of organizational and administrative problems and their solutions.

CCJ 6477 Seminar in Information Systems (3). An advanced seminar in the survey and application of electronic data in the criminal justice system. Prerequisite: COC 3300 or permission of instructor.

CCJ 6665 Victimology and the Criminal Justice System(3). An examination of the relationship of victims and offenders and the manner in which the criminal justice system responds to victims of crime.

CCJ 6705 Advanced Research Methods (3). Emphasis is placed on the design of research projects, the analysis of research data, and the utilization of research within the criminal justice system.

CCJ 6706 Applied Statistical Techniques for Criminal Justice (3). Statistical tools applicable to criminal justice research are examined. Emphasis is on developing an understanding of the various techniques and their applications. The use of computerized statistical packages will be presented. Prerequisites: STA 3122 and STA 3123, or permission of instructor.

CCJ 6716 Planning and Program Evaluation (3). A systematic review of the problems involved in productivity, improvement in criminal justice agencies, and program evaluation.

CCJ 6915 Directed Individual Graduate Study in Criminal Justice (3). Students can select a particular aspect of criminal justice for in-depth independent study with a Criminal Justice faculty. Prerequisite: Graduate standing.

CCJ 6945 Field Experience in Criminal Justice (3). A course designed to provide selected students an opportunity to engage in action-oriented research within a criminal justice agency on a designated research project.

CCJ 6971 Thesis Research (3). This course is devoted to the actual research labor required for a thesis in the Masters program.

CCJ 6976 Masters Thesis Defense (3). This course is devoted to the effort required to prepare the thesis document.

Health Services Administration

Vandon White, *Professor and Acting Director*
Gerald Cunningham, *Instructor*
Thomas M. Dunaye, *Professor and Acting Associate Dean*
Rosebud Foster, *Professor*
Charles Frankenhoff, *Senior Lecturer*
Susan Kamons, *Assistant Professor*
Joseph Patterson, *Professor and Coordinator for MPH Program*
Max Rothman, *Senior Lecturer*
Krismasuami Siddherthan, *Assistant Professor*
Arnoldo Ventura, *Associate Professor*
Melissa Wheeler, *Instructor*

The Department of Health Services Administration offers graduate and undergraduate studies leading to Bachelors and Masters degrees in Health Services Administration and Public Health.

The baccalaureate program provides professional education which typifies the traditional preparation of mid-level administrators and department supervisors practicing various middle-management functions usually in community based health care settings.

The graduate program provides scholarly, scientific, and professional education which is characteristic of traditional preparation for management executives practicing the administration of complex health care organizations in governmental and private settings geographically within communities, regional, state, and national systems.

The modern management of health services occurs in an environment vexed with problems of organizational and technological change. Administrators charged with executive responsibilities must be grounded in a high degree of formal professional training followed by lifelong learning which fosters their continuous professional growth. With the delivery of health services becoming vastly more complex, general management competencies have emerged three and four levels below that of the chief executive officer in large health institutions. Many of the same skills needed for executive management are now also required to provide administrative leadership in staffing, directing, coordinating, and controlling the operational resources of administrative and clinical units in such organizations.

Health Services Administration Programs

The Bachelor's program is designed to qualify students for entry-level administrative positions with various health care organizations or may, depending upon a student's prior professional experience in this field, serve as the necessary ideal preparation for further graduate study in health service administration such as the master's program offered by this Department. Both programs are structured systematically on the model of bachelors studies scholastically-linked directly to the masters studies in a logical sequence of 'basic-to-advanced' education for this profession. Such opportunity for bi-level academic preparation in an integrated programmatic framework at the same university is an unusual innovation in academic settings at the present time in the United States.

The Master's program in Health Service Administration, by virtue of its academic and field experience requirements, is generally considered a professional degree program. Most graduates will seek immediate employment in a career application of these studies at the central or overall level of administration.

The Master of Public Health program prepares individuals to initiate and participate in organized community efforts, to protect, maintain, and promote the public's health. It prepares students for positions in a variety of public and private health-related organizations. The Master's program are designed so that full-time students may complete all course work in four semesters. The same curriculum can be completed by part-time students within three years. Formal studies stress a basic foundation of professional knowledge, skills and competencies in management, planning, analytic and policy functions of health services and public health. This focus is concerned with application both in the United States and in the international setting.

Since these studies provide a professional emphasis, the Department utilizes a variety of local hospitals, long-term care facilities, prepayment plans, mental health programs, multi-institution corporations, emergency medical systems, health maintenance organizations, community health centers, and related public health and private agencies to give students supervise field experiences and a 'practical laboratory' for operational research in health service administration.

The goal of both Master's and Bachelor's programs is to create an academic center in which the University can respond to the educational needs of the field of health services administration. The Department's mission, therefore, is dedicated to the following educational objectives:

1) To provide professional studies in the theories, methods and practices of health care management, planning, analysis, applied research, and policy development in health services organizations.

2) To offer continuing education opportunities periodically for practicing administrators toward improving the effectiveness of their management performance.

3) To participate in interprofessional education experiences with faculty, students, and practitioners of the allied health sciences, public affairs, and related human services professions interacting with the field of health care management.

4) To extend consultation and technical assistance to appropriate organizational settings and practitioners in health services and administrative practice.

5) To conduct scholarly and applied research on various management problems and issues of significance to improving the delivery of health services.

6) To review and revise program curricula and objectives from time to time in order to keep current with the changing educational and professional needs of the field.

Degree: **Bachelor of Health Services Administration**

Admissions Criteria: Students seeking admission into the bachelor's program must meet the following minimum requirements:

1. An Associate of Arts degree, or its equivalent (e.g., Associate of Science, three year nursing diploma) in lower-division coursework (60 semester hours) completed in the first two years of preparation at an accredited college or university, with a minimum 2.0 cumulative grade point average.

2. Non-traditional coursework is to be referred to the Department for evaluation.

3. The maximum of lower-division transfer credits is 60 semester hours. Upper division credit hours from another institution or department may be transferred up to a maximum of 30 semester hours toward the fulfillment of required or elective courses in the program.

4. Admitted applicants must meet all general educational requirements of the University, or receive provisional admission. Students with one deficiency will be admitted and applicants with two or more deficiencies will only be admitted with departmental approval.

5. Any other general admissions requirements of undergraduate programs at the University as found in the catalog of the current academic year.

6. Students who have not completed the admission process may register as Affiliated Students pending admission. A maximum of 15 semester hours taken as and affiliated student can be used toward a degree. Affiliated status does not guarantee admission to the bachelor's program.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Internship Requirement

Students electing an administrative internship generally begin their internship in the final semester. If this period of field placement is evaluated by the Department as successful, the student will graduate at the end of that semester provided that all other requirements have been met.

All students must achieve a GPA of 2.5 or higher in all upper-division coursework before they are permitted to enroll in the Administrative Internship (HSA 4850). Students must apply for the internship, be approved and placed in an agency by the Department the semester before the administrative internship begins.

The Department utilizes the administrative internship as a mechanism in lieu of special arrangements with the University's Office of Cooperative Education.

For further information regarding internship placements, reference should be made to the Department Policy and Procedures Statement on the Administrative Internship.

Program Requirements: All Department students completing BHSA in Health Services Administration are also subject to undergraduate student regulations and degree requirements governed by the policies of the School of Public Affairs and Services, Florida International University, and the State University System.

Core courses required of all students: (27 semester hours)

HSA 3103	Health and Social Service Delivery Systems[1]	3
HSA 3180	Management for Health Professions[1]	3
HSA 4170	Health Care Financing and Accounting Management	3
HSA 4110	Health Care Organization and Administration	3
HSA 4420	Legal Aspects and Legislation in Health Care	3
HSC 4202	Principles and Programs in Public Health	3
HSC 4500	Principles of Applied Epidemiology	3
HSC 4510	Statistical Methods for Health Care	3
HSA 4700	Fundamentals of Health Research Methods	3

[1] HSA 3103 is a prerequisite for all health related courses. HSA 3180 is prerequisite for all management courses.

Areas of Specialization: (One area of specialization required)

Special Care Systems: (15 semester hours)

GEY 3002	Issues and Trends in Gerontology	3
HSA 3123	Mental Health and Mental Retardation	3
HSA 4104	Team Approach to Health Services Delivery	3
HSA 4140	Program Planning and Evaluation	3
SOW 5643	Understanding the Process of Aging	3

Management and Supervision: (15 semester hours)

HSA 4150	People, Power, and Politics in Health Affairs	3
HSA 4183	Applied Management in Health Care Organizations	3
HSA 4184	Human Resource Management	3
HSA 4193	Automated Management and Information Systems	3
HSA 4192	Health Management Systems Engineering	3

Elective Courses[2]**:** (18 semester hours)

HSA 4104	Team Approach to Health Services Delivery	3
HSA 4113	Issues and Trends in Health Care Delivery	3
HSA 4194	Health Care Computer Applications	3
HSA 4905	Independent Study	3
HSA 4930	Special Topics Seminar in Health Services	3
HSA 4850	Administrative Internship	6

[2] Elective courses may include upper-division courses offered by any University department including departmental courses in an area of specialization not selected by the student.

Master of Health Services Administration

Admission Criteria: Students seeking admission into the graduate program must meet the following minimum requirements:

A Bachelor's degree from a regionally accredited university or college. Prerequisites for admission to this program are coursework in basic accounting, statistics, and economics with grade equivalents of 'C' or higher. (HSA 4170 and HSC 4510 are examples of equivalent courses provided by the Department.)

A 'B' or higher average in all work attempted while registered as an upper-division student for a baccalaureate degree, or a total score (verbal and quantitative) of 1000 on the Graduate Record Examination (GRE), 500 on the Graduate Management Admissions Test (GMAT), passed the LSAT, MCAT, ECFMG, or equivalent, or a graduate degree from an accredited institution. Preference will be given to those who meet both of these qualifications. All graduate applicants to this program are required to take the GRE or equivalent test regardless of previous grade point average or degree.

Submission of a statement indicating the applicants reasons for seeking a master degree in health administration, previous work experience, career goals, and objectives.

Meeting the minimum requirements does not guarantee admission to the program. Admission will be based on additional factors such as space availability, relevant work experience, motivation, successful completion of work as a non-degree seeking student, and compatibility of applicant's career goals with the program's objectives.

Admissions Procedures: A student planning to enroll in the graduate program in Health Services Administration must meet the University graduate admission requirements as stated in the Catalog's General Information section as well as department requirements.

All admitted students, whether full or part-time may begin their program of study in any semester, and all applications for admissions should be received by the Department no later than two months preceding the semester in which the student wishes to commence the program. If the admissions process cannot be completed in this time frame, the applicant may register as an affiliated student pending admission. A maximum of 12 semester hours taken as an affiliated student can be used toward the degree. Affiliated status does not guarantee admission to the degree program.

The Department Admissions Committee will review completed applications and candidates will be notified for a personal interview, which will be arranged at the mutual convenience of applicants and University faculty or their designee.

Degree Requirements: To be eligible for a Master's degree, a student must:

1. Satisfy all University requirements for the Master of Health Services Administration Program.
2. Complete a minimum of 48 semester hours of graduate level coursework in the department approved program.
3. Earn a minimum GPA of 3.0 or equivalent in all work completed at the University as a graduate student.
4. No courses in which a grade below 'C' is earned may be counted toward the master's degree.
5. A maximum of nine semester hour-credits of graduate coursework not included in another degree, may be transferred from an accredited university by petition at the time of admission.

Non-Degree Seeking Student

Non-degree seeking students who wish to register for 5000-level courses may do so with the permission of the instructor. University regulations pertaining to non-degree seeking status must be observed.

Academic Warning, Probation and Dismissal
Refer to General Information section.
Administrative Residency

A three-month summer administrative residency in a health care organization is required of all students.

The residency is considered an integral part of the educational process. It is designed to provide practical experience with the theories, concepts, and administrative skills the students acquired during the first year of academic study. The residency is normally arranged in an agency or institution compatible with the students area of interest. The student will work full-time with the health agency during this period. The faculty will supervise the student during this period. During this period, the residency will also constitute full-time matriculation in the program and will require payment of regular tuition fees for the field placement courses. Students must apply for the administrative residency, be approved and placed in an agency by the Department the semester before the residency begins. For more information, reference should be made to the Department Policy and Procedure Statement on the Administrative Residency.

Master's Research Project Requirement: Students with extensive health care work experience may elect to do a research project in lieu of the three-month residency. The project will require an analysis of a major problem defined by the preceptor. The project will be conducted during the summer months. For further information, reference should be made to the Department Policy and Procedure Statement on Master's Research Project.

Program Requirements: All Department students completing the master's program are subject to graduate student regulations and degree requirements governed by the policies of the School of Public Affairs and Services and the University.

Program Total: (48 semester hours)
Core Courses required of all students: (42 semester hours)

HSA 5125	Introduction to Health Services[1]	3
HSC 5506	Epidemiology and Research Methods of Public Health	3
HSC 5515	Statistical Methods for Health Services	3
HSA 6405	Behavioral Aspects of Health and Illness	3
HSA 6155	Health, Policy and Economics	3
HSA 6175	Financial Management of Health Systems	3
HSA 6426	Health Law and Legal Aspects of Management	3
PHC 6315	Public Health and Environmental Management	3
HSA 6185	Health Care Management Theory and Practice	3
HSA 6186	Organizational Behavior in Managing Health Institutions	3
HSA 6149	Strategic Planning and Marketing of Health Care Services	3
HSA 6195	Quantitative Managerial and Applied Research Methods	3
HSA 6717	Advanced Health Services Management and Research Seminar (CAPSTONE)	3
HSA 6877	Master's Research Project	3
or		
HSA 6875	Administrative Residency	

[1]HSA 5125 and HSA 6185 are prerequisites for all departmental graduate courses except for students who have completed the department's Bachelor's program. For such students, HSA 5125 and HSA 6185 are waived and electives will be substituted in the Master's program.

Electives[1]: (6 semester hours)

HSA 5225	Long Term Care Administration	3
HSA 6215	HMO and Ambulatory Care Administration	3
HSA 6176	Financial Reporting, Review and Reimbursement Systems in Health Care	3
HSA 6205	Hospital and Health Facilities	3
HSA 6187	Personnel Management and Labor Relations	3
HSA 6147	Comparative Health Systems and International Health Planning	3
HSA 6196	Research Design and Applied Analytical Techniques for Health Care	3
HSA 6245	Mental Health Administration and Planning	3
HSA 6905	Independent Advanced Study	3

[1]Students may pursue areas of special interest by selecting courses either within the Department or from other units of the University (i.e., social work, public administration, criminal justice, business administration, or other disciplines).

Master of Public Health

The Master of Public Health is an affiliated program offered with the Department of Epidemiology and Public Health at the University of Miami's School of Medicine.

The program is designed to provide fundamental skills in core areas of Public Health to persons involved in the policy development, planning, and implementation of community health services; and to serve those seeking a broader base of knowledge to improve environmental and personal health services for the community. This program prepares the practicing professional in the diverse fields of community health.

Admission Requirements: Applicants must meet the University's general graduate admission requirements:

1. A bachelor's degree or equivalent from an accredited college or university or, in the case of foreign students, an institution recognized in its own country as preparing students for further study at the graduate level, and submit a score of 500 on the TOEFL.
2. A minimum 3.0 GPA (on the last 60 undergraduate hours), or a combined quantitative and verbal score of 1000 on the GRE taken within the last five years; or a score of 500 on the GMAT; passed the MCAT, LSAT, or equivalent; or a graduate degree from an accredited institution. However, all applicants, regardless of previous GPA, are required to submit the appropriate aptitude test scores. In addition, applicants are required to 1) submit three letters of recommendation from persons in the field of public health and the academic major at the institution most recently attended; 2) have a personal interview with the Graduate Admission Committee; 3) submit a written personal statement as described in the application packet provided by the Public Health program.

Students with diverse backgrounds will be encouraged to apply; relevant work experience will be given strong consideration.

Field Training/Master's Research Project

All MPH students must complete either a field-training residency or a master's research project as a general core course requirement.

Field Experience Option: This option is recommended for all students with less than three years of experience in health-oriented program. Field experience gives the student the opportunity to gain practical experience under preceptor-guided supervision in public health. Students should consult the Coordinator of Field Training for further information.

Research Option: This option is recommended for students with three or more years of experience in a health-related program. The research project affords the opportunity to conduct research on a specific public health problem or topic in either a community or institutional setting. MPH students who select the research project must choose a faculty member to direct their research. The advisor and the student may identify other resource persons to serve in an advisory capacity for the research project.

Degree Requirements: Students must complete at least 45 semester hours of approved coursework with a minimum of a 'B' average. All work applicable to the degree must be completed within six years immediately preceding the awarding of the Master's degree.

Program of Study

The course of study is designed to allow students to concentrate in one of five areas:

Environmental Health
Epidemiology
Health Promotion
Public Health Policy and Administration

Courses for the Master of Public Health are divided into five major areas:
General Core (18 semester hours); Field or Research Project (3 semester hours); Concentration Core (18 semester hours); General Electives (6 semester hours).

General Core Courses: (18 semester hours)

HSA 5125	Introduction to Health Services	3
HSC 5515	Statistical Research	3
PHC 6315	Public Health and Environmental Management	3
HSA 6405	Behavioral Aspects of Health and Practice	3
HSA 6185	Health Care Management Theory and Practice	3
HSC 5506	Epidemiology and Research Methods for Public Health	3

Field or Research Project: (3 semester hours)

HSA 6875	Administrative Residency	3
or		
HSA 6977	Master's Research Project	

Health Policy and Administration Concentration

Emphasis is on Health Policy Analysis and Ambulatory Care Administration.

Required Courses: (12 semester hours)

PHC 6150	Public Health Policy Analysis and Formulation	3
HSA 6155	Health Care Policy and Economics	3
HSA 6175	Financial Management of Health Systems	3
HSA 6149	Strategic Planning and Marketing of Health Services	3

Concentration Electives: (6 semester hours)
Select two courses from the following list:

HSA 6215	HMO and Ambulatory Care Administration	3
HSA 5408	Health Services Consumer Behavior	3
HSA 5425	Long Term Care Administration	3
HSA 6187	Personnel Management and Labor Relations	3
HSA 6756	Applied Program Development and Evaluations Methods in Health Services	3
PHC 6425	Legal and Regulatory Aspects of Environmental Health	3
PHC 6503	Community Organization for Health Promotion	3

General Electives: (6 semester hours)

Health Promotion Concentration

Required Courses: (12 semester hours)

PHC 6501	Health Promotion Communication Theory and Design	3
PHC 6503	Community Organization for Health Promotion	3
PHC 6580	Contemporary Issues in Health Promotion	3
PHC 6750	Program Development and Evaluation in Health Promotion	3

Concentration Electives: (6 semester hours)
Select two courses from the following list:

PHC 6016	Social Epidemiology, Health Promotion and Policy	3
PHC 6150	Public Health Policy Analysis and Formulation	3
PHC 6311	Environmental Health Risk Assessment	3
PHC 6502	Health Promotion in the Workplace	3
PHC 6585	Health Promotion in the Clinical Settings	3

General Electives: (6 semester hours)

Epidemiology Concentration

Epidemiology is the study of the distribution of diseases in the community and the factors influencing or determining this distribution. Interested students should contact the Department at 940-5895.

Environmental Health Concentration (Offered in cooperation with the Department of Civil and Environmental Engineering)
Required Courses: (12 semester hours)

PHC 6150	Public Health Policy Analysis and Formulation	3
PHC 6311	Environmental Health Risk Assessment	3
PHC 6425	Legal and Regulatory Aspects of Environmental Health	3
PHC 6501	Health Promotion Communication Theory and Design	3

Concentration Electives: (6 semester hours)
Select at least three courses from the following list:

EES 5506	Occupational Health	3
ENV 5062	Environmental Health	3
HSA 6149	Strategic Planning and Marketing of Health Services	3
HSA 6155	Health Care Policy and Economics	3
HSA 6175	Financial Management of Health Systems	3
HSA 6716	Advanced Application of Operation Research	3
PHC 6150	Public Health Policy Analysis and Formulation	3

General Electives: (6 semester hours)
Environmental Health Science Option
Required Courses: (9 semester hours)

PHC 6150	Public Health Policy Analysis and Formulation	3
PHC 6311	Environmental Health Risk Assessment	3
PHC 6425	Legal and Regulatory Aspects of Environmental Health	3

Concentration Electives: (9 semester hours)
Select at least three courses from the following list:

ENV 5062	Environmental Health	3
ENV 5115	Air Pollution Control	3
ENV 5116	Air Sampling Analysis	3
ENV 5126	Air Quality Management	3
ENV 5306	Solid Wastes	3
ENV 5506	Occupational Health	3
ENV 5520	Vector and Pest Control	3
ENV 5655	Environmental Planning	3
ENV 5666	Water Quality Management	3
ENV 6508	Occupational Health and Toxicology	3

General Electives: (6 semester hours)

Course Descriptions

Definition of Prefixes

HSA — Health Services Administration; HSC — Health Sciences; PHC — Public Health Concentration; GEY — Gerontology

GEY 3002 Issues and Trends in Gerontology (3). Students are introduced to the aging phenomenon and program efforts being undertaken by public and private agencies coping with the problem of aging.

HSA 3103 Health and Social Service Delivery Systems (3). Students examine the history and current functions of health and social services delivery systems in the United States. Focus is on the components, their interaction and internal/external controls.

HSA 3123 Mental Health and Mental Retardation (3). The student will examine the community mental health services and services for the mentally retarded from a historical, policy, legislative, and systems perspective.

HSA 3180 Management for the Health Professions (3). Fundamental theories, principles, and concepts of management are surveyed to prepare the student for a middle-management position in health care. Case studies are utilized for practical application.

HSA 4104 Team Approach to Health Service Delivery (3). Team formation, structure, composition, maturity, growth, and the process are identified. Team management in health facilities are discussed.

HSA 4110 Health Care Organization and Administration (3). U.S. health care organizations are examined from a systems viewpoint focusing on macro and micro systems and corporate hospital management.

HSA 4113 Issues and Trends in Health Care Delivery (3). Issues and trends in policy questions involving health care organizations, financing, quality controls, and delivery of services are addressed.

HSA 4140 Program Planning and Evaluation (3). Basic concepts of planning and evaluation as the fundamental tools of program design and development are examined.

HSA 4150 People, Power and Politics in Health Affairs (3). Community power structures are analyzed as to their function in politics and decisions governing health care. Health professional's role is studied with respect to the political process in health care.

HSA 4170 Health Care Financial and Accounting Management (3). Basic accounting and department- level financial management methods and procedures are taught at the supervisory level of health care institutions.

HSA 4183 Applied Management in Health Care Organization (3). Management theory and principles are examined in their application to the administrative process. Case studies are emphasized to illustrate operational conditions found in health care settings.

HSA 4184 Human Resources Management and Supervision (3). The role of health care supervisors is examined with respect to interviewing, performance appraisal, disciplining, counselling, job orientation, in-service education and responsibilities.

HSA 4192 Health Management Systems Engineering (3). Introduction to health systems analysis and application of industrial engineering techniques including work systems, job analysis, space utilization, inventory control, and traffic patterns are studied.

HSA 4193 Automated Management and Information Systems (3). The analysis, design, and installation of management information systems in health care organizations is studied. Evaluation of computer systems from several perspectives are examined.

HSA 4194 Health Care Computer Applications (3). Computer applications for administrative analysis of various patient care, financial and program data typically found in health care is studied with design, interface, and data structures.

HSA 4420 Legal Aspects and Legislation in Health Care (3). Corporate structure and legal liabilities of health care institutions and professionals is studied from a local, state, and federal regulatory position.

HSA 4700 Fundamentals of Health Research Methods (3). Introduction to health research method's tools including literature research, research report analysis covering research design, and data analysis and reporting writing are examined and practiced. Prerequisite: HSC 4510.

HSA 4850 Administrative Internship (6). The student who has completed all required upper division course work is provided an opportunity to observe and engage in administrative practice in a health care setting. Prerequisite: Completion of all curriculum required course work. Prerequisite: Approval of the Coordinator.

HSA 4905 Undergraduate Independent Study (1-3). Students take part in in-depth research or an action-oriented project under the supervision of their faculty advisor. Preparation and approval of the content must be made one semester in advance. Prerequisite: Permission of faculty advisor.

HSA 4930 Special Topics Seminar in Health Services (3). Students investigate topics of interest in health care services through lectures by the faculty and guest speakers. May be repeated. Prerequisite: Permission of faculty advisor.

HSA 5125 Introduction to Health Services (3). The American health care system is broadly analyzed in social, economic, and political terms, including examination of its major operational and programmatic components as they have evolved in their changing patterns and trends of organizational development.

HSA 5225 Long-Term Care Administration (3). Nursing home and long-term care institutional organization and management are studied for specialized administrative knowledge in the successful operation of these types of health care facilities and their special patient populations.

HSA 5408 Health Services Consumer Behavior (3). Course examines the factors affecting consumer choice in the utilization of types of health services, health services delivery locations, and methods of health care delivery. Examines the role of the provider in consumer behavioral model.

HSA 6147 Comparative Health Systems and International Health Planning (3). Students are directed through a study of the social, economic, political, and cross-cultural aspects of comparing health care systems of different countries of the world in terms of international perspective and relevance to future developments in the U.S. system.

HSA 6149 Strategic and Marketing of Health Care Services (3). Principles, techniques, and case study applications of strategic planning and marketing in the context of changing environmental, policy, and competitive forces in the health services industry.

HSA 6155 Health Policy and Economics (3). The impact of government, private sector, and various interest groups on health care policy determination is analyzed through the application of basic economic principles.

HSA 6175 Financial Management of Health Systems (3). Aspects of modern hospital and health care organization financial management are covered to prepare students for executive roles in policy planning and control responsibilities involving budgeting, auditing, investing, capital financing, etc.

HSA 6176 Financial Reporting, Review and Reimbursement Systems in Health Care (3). Financial reporting requirements of health care facilities and programs serve as the primary focus of this course. Cost reporting requirements of medicare, medicaid and private third party payers are analyzed. Prerequisite: HSA 6175 or permission of instructor.

HSA 6185 Health Care Management Theory and Practice (3). This is the anchoring course for examining each specialized study of the management functions in theory and in practice as they apply to health care organizations of both public and private sectors. Prerequisites: HSA 3180 or equivalent with instructor's permission unless admitted as MHSA program major.

HSA 6186 Organizational Behavior in Managing Health Institutions (3). General theories of organizational behavior and executive functions are examined in their application to hospitals and other health agencies. Prerequisite: HSA 6185 or equivalent with instructor's permission.

HSA 6187 Personnel Management and Labor Relations (3). Staffing function of manpower and related personnel resources in health care organizations: practices of wage determinations, take analysis, employee recruitment/selection, work evaluation, collective bargaining, and contract negotiation implications.

HSA 6195 Quantitative Managerial and Applied Research Methods (3). Surveys the operations research tools and techniques used in health care organizations to solve operational and control problems that impact on efficiency, effectiveness, productivity, technological change, innovation, retrofitting. Prerequisite: HSC 5515 or equivalent with permission of instructor.

HSA 6196 Research Design and Applied Analytical Techniques for Health Care Information (3). Develops skills and techniques for the quantitative analysis of various data sets for health organization administrative and clinical information. Prerequisite: HSC 5515.

HSA 6205 Hospital and Health Facilities Organization (3). Administrative theory and management principles are examined in their application to the organizational analysis of hospitals and health care facilities.

HSA 6215 HMO and Ambulatory Care Administration (3). Overview of the management process employed in health maintenance organizations (HMO's). and other group medical practices operating under various financial arrangements, including pre-payment. Prerequisite: HSA 5125.

HSA 6245 Mental Health Administration and Planning (3). Psychiatric and mental illness institutions are examined in terms of specialized organizations and administrative knowledge required for the operation of these typed of health care facilities and their particular patient populations.

HSA 6405 Behavioral Aspects of Health and Illness (3). Psychological determinants of health, illness, and sick role behavior, with emphasis on risk taking behavior and preventive intervention. Critical review of models of health behavior.

HSA 6426 Health Law and Legal Aspects of Management (3). The broad range of legal issues in health care and administrative aspects of law that concern health care managers are surveyed for implications concerning malpractice, patient rights, contracts, liability and immunity, taxation, surgical consent, etc.

HSA 6717 Advanced Health Services Management and Research Seminar (3). Integrates the theoretical and practical knowledge of other courses and activities in the curriculum. Selected case studies and relevant research drawn from the literature in health care management provide the substantive framework for seminar analysis of issues and policy questions .

HSA 6756 Applied Programs Development and Evaluation Methods in Health Services (3). Program evaluation as part of ongoing assessment of effectiveness. Evaluation models and study design is analyzed. Practical emphasis on preparation of grant proposal.

HSA 6875 Administrative Residency (3). Off-campus placement in residency with health care organizations under supervision of a managing preceptor at the site. Prerequisite: Approval of the Coordinator.

HSA 6877 Masters Research Project (3). The student will be field afforded the opportunity to conduct a research project on a specific health care management problem in a community or institutional setting. A formal proposal will be prepared and approved by faculty. Students will be expected to demonstrate during the course of this research project that they can implement theoretical knowledge and skills learned earlier in courses on research methods and design. Prerequisite: Permission of advisor.

HSA 6905 Graduate Independent Study (3). This course is designed to allow students an opportunity for in-depth literature research or an action-oriented project carried out under the supervision of their faculty advisor. Prerequisite: Permission of faculty advisor.

HSC 4202 Principles and Programs in Public Health (3). Analysis of public health programs and planning is studied. Public health history and philosophy focusing on a broad environmental and epidemiological problems are examined. Prerequisites: HSA 3103, 3180, or 4125.

HSC 4500 Principles of Applied Epidemiology (3). Methods and techniques used by epidemiologists investigating the distribution and causes of diseases are studied. A holistic approach to principles of disease surveillance and control is studied. Prerequisites: HSC 4202 and 4510.

HSC 4510 Statistical Methods for Health Care (3). Basic statistics and quantitative analysis are introduced to students for application with clinical and supervisory management problems encountered in health care settings. Prerequisite: College Algebra or equivalent.

HSC 5506 Epidemiology and Research Methods of Public Health (3). Advanced epidemiological and survey research methods are applied to the investigation of public and personal health problems. Prerequisite: HSC 5515.

HSC 5515 Statistical and Research Methods for Health Services (3). This course presents concepts of descriptive, inferential, and non-parametric statistics, including the use of common computer program packages for analyzing public and clinical health statistical data. Prerequisite: HSC 4510 or equivalent.

PHC 6016 Social Epidemiology, Health Promotion and Policy (3). Explores the epidemiological aspects of health and medical care of the poor and disadvantaged population groups. Emphasis on the relationship of organization and delivery of health care, including health promotion, prevention, and related topics. Prerequisite: HSC 5506.

PHC 6150 Public Health Policy Analysis and Formulation (3). Strategies for formulating public health policy; political processes; resource allocation, organization, and participation. Examination of current policy issues and efforts to effect change.

PHC 6311 Environmental Health Risk Assessment (3). This course explores environmental health care management problems associated with risk to the population from exposure to particular agents and conditions. Emphasizes practical problems in risk estimation through the case method approach.

PHC 6315 Public Health and Environmental Management (3). An overview of public health philosophy and government organization in the provision of official agency, environmental, and preventive medicine services, with particular emphasis on the regulatory and surveillance responsibilities authorized in the public sector. Prerequisites: HSA 5125, 6316, or permission of instructor.

PHC 6425 Legal and Regulatory Aspects of Environmental Health (3). The application of law as it relates to the environment and human health. Legal process and rule-making; cost-benefit analysis; judicial review; evidentiary problems; and other elements of environmental law are emphasized. Prerequisites: Epidemiology and Biostatistics

PHC 6501 Health Promotion Communication Theory and Design (3). Theory, design, and implementation of health education communication utilized in reaching the public. Emphasis on the critical analysis of the communication processes; group techniques and media methods; and the consultation process. Prerequisite: Health Promotion Concentration or by permission of instructor.

PHC 6502 Health Promotion in the Workplace (3). Emphasis is on program design, management, and evaluation of health promotion in industry. Current issues on health assessment, fitness, and emotional stress in the workplace will be considered. Prerequisite: Health Promotion Concentration or permission of instructor.

PHC 6503 Community Organization for Health Promotion (3). Emphasis is on the diagnosis of community health problems and various organizational strategies utilized for effective solution. Review and analysis of community organization process; resources; and the role of health promotion specialist. Prerequisite: Health Promotion Concentration or permission of instructor.

PHC 6580 Contemporary Issues in Health Promotion (3). Current problems and findings in health promotion content areas as smoking, alcohol, and drug misuse, family health, safety, physical fitness, communicable and chronic diseases will be discussed. Prerequisites: Epidemiology and Biostatistics.

PHC 6585 Health Promotion in Clinical Settings (3). Analysis of the role, methods, and techniques of health promotion and patient education pertaining to hospitals, clinics and other ambulatory health services. Prerequisites: Epidemiology and Biostatistics.

PHC 6750 Program Development and Evaluation in Health Promotion (3). Principles and procedures in health promotion program development and evaluation. Emphasis on needs assessment, planning models, evaluation designs, data collection, analysis and reporting. Prerequisites: Epidemiology and Biostatistics.

Medical Record Administration

Elizabeth Johnson, *Acting Director and Assistant Professor*

The major in Medical Record Administration prepares the student for the variety of responsibilities and functions involved in the management of a Medical Record Department. Medical Record Administrators design and supervise systems relating to the collection, analysis, retention, retrieval and evaluation of medical records. The priorities of the position include maintaining complete, accurate and timely medical records, assisting the medical staff, and developing and implementing policies and procedures which adhere to the ethical and legal requirements and meet the accreditation standards set forth for the health care facility.

The Medical Record Administration Program is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association in collaboration with the Council on Education of the American Medical Record Association. Graduates are eligible to take the National Registration Examination, satisfactory completion of which allows one to become a Registered Record Administrator.

Degree: **Bachelor of Science**

Prerequisite Courses: Anatomy and Physiology including laboratory; Statistics; Microbiology or Epidemiology.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program (60 semester hours)
Required Courses[1]: (55 semester hours)

HSC 3152	Legal Aspects of Medical Record	3
HSC 3531	Medical Terminology	3
MRE 3110	Medical Record Administration I	3
MRE 3202	Basic Coding Procedures	3
MRE 3205	Medical Record Administration II	4
MRE 3312	Medical Record Management I	3
MRE 3401	Fundamentals of Medical Science I	3
MRE 3402	Fundamentals of Medical Science II	3
MRE 3800	Directed Practice I	1
MRE 3810	Directed Practice II	1
MRE 4304	Problems in Medical Record Administration	3
MRE 4344	Medical Record Management II	4
MRE 4400	Health Care Records: Multi-Institutional	3
MRE 4415	Medical Record Administration III	3
MRE 4204	Advanced Coding	3
MRE 4211	Medical Record Information Systems	3
MRE 4831	Directed Practice III	1
MRE 4835	Internship in Medical Record Management	4

Support Courses[1]: (9 semester hours)

HSA 4170	Health Care Financial and Accounting Management	3
HSA 4184	Human Resources Management and Supervision	3
HSA 4192	Health Management and Systems Engineering	3

[1] Must earn a minimum grade of 'C' (2.0) in each course. Grade of 'C-' or below must be repeated.

Course Descriptions

Definition of Prefix

MRE — Medical Record Administration; HSA — Health Services Administration; HSC — Health Science Concentration.

HSC 3152 Legal Aspects of Medical Record (3). Consideration of Medical Record as legal document to include general introduction to law, release of information, and legal actions.

HSC 3531 Medical Terminology (3). Provides the student with basic medical language skills, including pronunciation, spelling, and definitions necessary for communication in the medical world.

MRE 3110 Medical Record Administration I (3). Introduces the student to the historical development of medical record science; role and function of the medical record administrator; professional ethics; flow of the medical record from patient admission to completion of the record after discharge; numbering and filing systems. The medical record: content and format, value and standards for health care facilities.

MRE 3202 Basic Coding Procedures (3). Concepts and principles of nomenclatures and classification systems used to record and compare health data. Development of ICD-9-CM coding skills and applications for research. Prerequisites: Anatomy and physiology with laboratory and medical terminology.

MRE 3205 Medical Record Administration II (4). In-depth study of hospital statistics covering sources, definitions, collection and reporting of data by Medical Record Department. Principles of research defined. Microcomputer Lab included.

MRE 3312 Medical Record Management I (3). Management of a medical record system in any type of health care facility, including hospital and ancillary record, nursing care facilities, clinics and HMO: planning, organizing, actuating and controlling.

MRE 3401 Fundamentals of Medical Science I (3). A systematic review of organ systems, arranged by medical specialties. Typical chart data will be included, with representative information characteristic of history and physical examination, laboratory, x-ray data, and nursing notes. Specialties covered are internal medicine, pediatrics, obstetrics and gynecology. Prerequisites: Anatomy and Physiology and Medical Terminology.

MRE 3402 Fundamentals of Medical Science II (3). A systematic review of organ systems, arranged by medical specialties. Typical chart data will be included, with representative information characteristics of history and physical examination, laboratory, x-ray data, and nursing notes. Specialties covered are general surgery, neurosurgery, neurology, and orthopedics. Prerequisites: Anatomy and Physiology and Medical Terminology.

MRE 3800 Directed Practice I (1). Orientation of the student to the hospital medical record department and adjunct diagnostic or therapeutic units; including the outpatient department, emergency room, admitting office, x-ray, pharmacy, physical therapy, laboratory, and pathology department.

MRE 3810 Directed Practice II (1). Orientation of the student to medical record department functions. Rotation of the student through technical functions of the department, following the flow of the patient's record after discharge. Includes the discharge procedure; analysis, coding and indexing systems; statistical reporting; correspondence; control of the incomplete medical record; and processing of the completed record.

MRE 3949 Cooperative Education in Medical Record Administration (3). Supervised work in Medical Records taking part in the University Cooperative Education Program. Prerequisite: Admission to Co-op Education.

MRE 4204 Advanced Coding Procedures (3). Introduction to coding as it relates to DRG system. Record analysis and data quality addressed. CPT, DSM III and current coding issues and regulations presented and discussed. Prerequisite: MRE 3202.

MRE 4211 Medical Record Information Systems (3). Development of medical record information systems and applications for evaluation and management of a medical record department. Prerequisite: MRE 3110.

MRE 4304 Problems in Medical Record Administration (3). Through illustrative case reports, group discussions, role playing, oral reports, lectures, buzz sessions, and review of the literature; students explore effective methods for identifying and arriving at satisfactory solutions to specific types of problems they may expect to encounter in the administration of medical record services.

MRE 4344 Medical Record Management II (4). Application of management principles to M.R. System, including: development of manuals, job descriptions, interviewing and evaluation techniques, forms design, environmental planning etc. External activities assigned. Prerequisites: MRE 3312 or HSA 3180.

MRE 4400 Health Care Record: Multi-Institutional (3). Standards and procedures for long-term, ambulatory care, home health, rehabilitation, psychiatric, dental, Hospice and other health care services are investigated and compared.

MRE 4415 Medical Record Administration III (3). Quality assessment for health care institutions including risk manegement and utilization review. JCAH, AOA, PRO, Medicare and Medicaid requirements emphasized.

MRE 4831 Directed Practice III (1). Experience in quality assessment, risk management, and utilizetion review areas. Clinical experience in acute care and non-acute care facilities.

MRE 4835 Internship in Medical Record Management (4). Management experience in a medical record department under the supervision of a Registered Record Administrator. Emphasis on administrative and medical staff relationships.

MRE 4905 Directed Independent Study (1-3). Individual conferences, assigned readings, and reports on investigations in Medical Record profession.

MRE 4932 Special Topics (3). Designed to address topics not otherwise offered in the curriculum but specific to Medical Record Administration. Topics to be announced yearly.

MRE 4949 Cooperative Education in Medical Record Administration (3). Supervised work in Medical Records taking part in the University Cooperative Education Program. Prerequisite: MRE 3949.

Public Administration

Ralph G. Lewis, *Associate Professor and Director*
Keith W. Baker, *Associate Professor*
Dolores Brosnan, *Assistant Professor*
Adam W. Herbert, *Professor and Vice President for North Miami Campus*
M. Aman Khan, *Assistant Professor*
Donald Klingner, *Professor*
Stephen C. Loveless, *Assistant Professor*
Carmen Mendez, *Instructor*
Robert Meyers, *Assistant Professor*
Myung S. Park, *Professor*
Ann-Marie Rizzo, *Associate Professor*
Henry B. Thomas, *Assistant Professor*

Degree: **Bachelor of Public Administration**

The Bachelor of Public Administration (BPA) degree is offered mainly for students interested in beginning a public service career upon completion of their undergraduate work but also for those who wish to continue in public administration at the graduate level.

Admission Requirements: A student who has completed an Associate of Arts degree at a Florida public community college, or has earned 60 semester hours of college credit at any other accredited institution at an acceptable performance level.

Students with an Associate of Science degree or 60 semester hours will be accepted but must complete the General Education requirements before the bachelor's degree can be awarded.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Lower Division Preparation
It is recommended that applicants complete the Associate of Arts degree (60 semester hours) in the lower division and the General Education course requirements, including one course in American Government and Introductory Algebra or Statistics.

Upper Division Program
Students are required to complete:

1. Seven core courses.
2. Four courses in an administrative area of concentration to be taken within the Department.
3. Four elective courses relevant to the student's program of study.
4. Five general electives.

Note: Students must earn a grade of 'C' (2.0) or higher in each of the seven core courses, four administrative area courses, and four concentration related elective courses. A grade of 'C-' or below must be repeated.

Core Courses: (21 semester hours)

PAD 3034	Public Policy and its Administration	3
PAD 3104	Organization and Administrative Theory	3
PAD 3702	Quantitative Techniques for the Public Sector	3
PAD 4024	Concepts and Issues in Public Administration	3
PAD 4223	Public Sector Budgeting	3
PAD 4414	Personnel Skills for Administrators	3
PAD 3438	Communication Skills for Public Administrators	3

Note: Students who have not completed an approved introductory Public Administration course as part of their Lower Division preparation must take PAD 3002 Introduction to Public Administration, as an additional core requirement replacing one general elective.

Administrative Area of Concentration Courses: (12 semester hours)
One course must be taken from each of the following skill levels.

1. Political, Legal, Social, and Economic Contexts

PAD 3033	Administrators and the Legislative Process	3
PAD 3834	International Comparative Administration	3
PAD 4603	Administrative Law	3

2. Individual, Group, and Organizational Dynamics

PAD 3430	Personal Growth and Administrative Development	3
PAD 3413	Organizational and Group Processes	3
PAD 4103	Politics of Administrative Organization	3
PAD 4432	Administrative Leadership and Behavior	3

3. Policy and Analytic Skills

PAD 4103	Politics of Administrative Organization	3
PAD 4432	Administrative Leadership and Behavior	3

4. Administration

PAD 3804	Government and Administration of Metropolitan Areas	3
PAD 3834	International Comparative Administration	3

Concentration Related Electives: (12 semester hours)
Four additional courses must be taken but may be completed within or outside the Department. Those courses selected must be approved by the Department as being related to the student's program of study. These may be additional courses in the Department or they may be outside the department including courses that constitute part of a minor or a certificate program in another department. Such a minor or certificate program should be relevant to the chosen administrative area of concentration.

Note: Students who have not had employment experience relevant to public sector organizations will be encouraged to complete an internship in an approved public agency as one of the four area of concentration related courses.

Additional Electives: (15 semester hours)
Five courses will consist of general coursework to be completed outside the Department. Students choosing a minor or a certificate program for their concentration-related elec-

tives may complete those program requirements as general electives for the BPA, if necessary.

Minor in Public Administration

A five-course minor in Public Administration is available to baccalaureate degree-seeking students who are interested in careers in public management. The courses that comprise this minor will provide students with the opportunity to develop specialized skills in such areas as urban administration, organizational change, personnel management, and budgeting and financial management. The minor is available on both campuses.

Requirements: Fifteen semester hours in Public Administration. Classes are to be selected from the following course list:

PAD 3033	Administrators and the Legislative Process	3
PAD 3034	Public Policy and Its Administration	3
PAD 3104	Organization and Administrative Theory	3
PAD 3413	Organizational Group Processes	3
PAD 3430	Personal Growth and Administrative Development	3
PAD 3702	Quantitative Techniques for the Public Sector	3
PAD 3804	Government and Administration of Metropolitan Areas	3
PAD 3834	International Comparative Administration	3
PAD 4024	Concepts and Issues in Public Administration	3
PAD 4040	Public Values, Ethics and Morality in Changing Environment	3
PAD 4103	Politics of Administrative Organization	3
PAD 4223	Public Sector Budgeting	3
PAD 4414	Personnel Skills for Administrators	3
PAD 4432	Administrative Leadership and Behavior	3
PAD 4603	Administrative Law	3
PAD 5041	Values and Technology in Modern Society	3
PAD 5256	Economic Aspects of Government	3
PAD 5427	Collective Bargaining in the Public Sector	3
PAD 5435	Administrator and the Role of Women	3
PAD 5443	Public Administrator and Media Relations	3

Master of Public Administration

Degree: **Master of Public Administration**

The Master of Public Administration (MPA) degree is offered to prepare individuals for successful public service or academic careers. The MPA program provides a general degree in public administration with emphasis on individual student area concentrations. It prepares pre-service and in-service students to assume positions in management and management support areas, such as municipal managers, personnel directors, public service administrators, and budget and finance directors. For students seeking a career in teaching and research, the degree is designed to prepare them with a firm command of the relevant theoretical and operational public administration concepts and research skills necessary to pursue successfully doctoral studies.

Admission Requirements: All applicants must hold a baccalaureate degree from a regionally accredited college or university. In addition, each applicant must have a Graduate Record Examination (GRE) composite score of at least 1000 on the Verbal and Quantitative sections or a GPA of 3.0 or higher for all college coursework at the junior and senior levels. All applicants regardless of previous GPA are required to submit the appropriate test scores.

In addition, applicants are required to submit: (1) Three letters of recommendation from persons in the field of public administration and/or the academic major at the institution most recently attended; (2) A written personal statement concerning their interest in a career and aspirations in public administration; and (3) current resume.

The Master of Public Administration program is a 39 semester hour program composed of seven required courses (21 semester hours):

PAD 6053	Political, Social and Economic Context of Public Administration	3
PAD 6106	Organizational Theory and Administrative Behavior	3
PAD 6227	Public Finance and the Budgetary Process	3
PAD 6417	Public Personnel Administration	3
PAD 6701	Quantitative Methods and Computer Skills	3
PAD 6706	Research Methods in Complex Public Organizations	3
PUP 6005	Public Policy	3

Any core course may be waived through petition to the faculty. In such cases, students must demonstrate that their performance in previous course work meets or exceeds core course requirements.

The remaining 18 semester hours can be earned by pursuing one of three different tracks. These tracks are based on the fact that most students in the program fall broadly into two major categories: those who already have public sector experience, and those who wish to embark on public service careers but whose relevant experience is limited. To accommodate the diverse needs generated by those backgrounds, three tracks are included in the program.

Track I is aimed at persons seeking a more general background in public administration. All non-core courses are arranged into six modules. These modules are not concentrations or specializations, but simply clusters of course arranged by commonality of subject matter.

Students electing Track I will take at least one course from five of these six modules.

Module I: Values and Administration

PAD 5041	Values and Technology in Modern Society	3
PAD 6042	Democracy and the Administrative State	3
PAD 6605	Administrative Law and Procedures	3

Module II: Organizational Behavior

PAD 5427	Collective Bargaining in the Public Sector	3
PAD 6109	Organizational Development and Change	3
PAD 6419	Seminar in Applied Public Personnel Management	3
PAD 6437	Dynamics of Individual Growth	3

Module III: Quantitative Management Techniques

CGS 6301	Management Information Systems	3
PAD 5256	Economic Aspects of Government	3
PAD 6205	Public Financial Management	3
PAD 6229	Advanced Management Techniques	3
PAD 6715	Public Monitoring and Evaluation	3
PUP 6006	Public Policy Analysis and Evaluation	3

Module IV: Administrative Issues

PAD 5043	Government and Minority Group Relations	3
PAD 5435	Administrator and the Role of Women	3
PAD 5443	Public Administrator and Media Relations	3
PAD 5934	Contemporary Issues in Public Administration	3

Module V: State and Local Governments

PAD 6807	Urban and Municipal Government Administration	3
PAD 6816	Regional and State Government Administration	3

Module VI: International

PAD 6225	Comparative Public Budgeting	3
PAD 6836	International Public Administration	3
PAD 6838	Development Administration	3

Track II is aimed at students who wish to specialize in either public management, personnel management and labor relations, or budget and financial management. Students who elect either of these specifications will take at least five courses approved by the Department.

Track III is for those students who wish to concentrate on a particular area relevant to public administration, for instance, public health management, public sector finance and accounting, criminal justice, social work, etc. In such cases, students may take up to 15 semester hours from other departments within the university which offer courses relevant to the area of concentration. Students who select this approach must identify their area of concentration early in their course of study, and all courses to be taken outside the Department of Public Administration must be approved prior to registration. Any remaining course work required to complete the 39 semester hour program is to be chosen from elective courses in Public Administration.

The remaining three semester hours may be taken as either PAD 6907, PAD 6915, PAD 6946, or a scheduled elective course. Preservice students (those lacking at least one year of related post- baccalaureate professional experience prior to the date of application) are strongly urged to enroll in PAD 6946 (Internship). No more than three hours of PAD 6907, PAD 6915, or PAD 6946 will generally be credited toward degree requirements.

Doctor of Philosophy

Degree: **Doctor of Philosophy in Public Administration**

The Doctor of Philosophy in Public Administration (Ph.D. PA) is offered in affiliation with Florida Atlantic University. The basis of the degree is scholarship: one purses the degree in preparation for a career in which scholarly competence and demonstrated capability to conduct significant research is an essential element and one is conferred the degree only after demonstrating such knowledge, in course work, in examinations, and in disciplined research. Its pursuit is a rigorous one, administered by a research-oriented faculty fostering the commitment to testing the boundaries of knowledge. The program should be entered only by those students who seek academic and research careers rather than practitioner advancement.

The Doctoral program is a research-oriented degree. However, the objective is not to confine holders of the Ph.D. in Public Administration entirely to teaching careers. The program is designed to provide serious students with a firm command of relevant theoretical and operational knowledge and research skills in public administration and to assist them in applying this knowledge to a broad array of career goals.

The concept of a research-oriented Ph.D. degree is firmly supported by the National Association of Schools of Public Affairs and Administration (NASPAA) Guidelines for Doctoral Programs, which stress that the doctoral should not be seen as merely a credential for practitioners. Accordingly, the Ph.D. program in Public Administration includes a substantial amount of formal course work, and requires a demonstrated capacity to be a problem-solver, in the form of independent research and writing, notably the dissertation.

Admission Requirements: Application for admission to the Ph.D. in Public Administration may be made either at FIU or FAU, but not to both. Admission into the Ph.D. program will be granted to students of superior ability who have demonstrated a record of previous academic success, good potential for continued success in doctoral studies, and a desire to prepare for a career in which scholarship and research are major elements. An Applicant must have received a master's degree from an accredited college or university. Generally, an applicant is expected to have a GPA of 3.5 or better for all graduate coursework and a combined score of 1000 on the GRE quantitative and verbal sections. However, some applicants may be considered on the basis of their baccalaureate degree. Foreign students will be expected to achieve a TOEFL score of 580 or higher. Admitted students may transfer a maximum of six semester credits (not included in another degree) from other institutions toward Ph.D. degree requirements. Outstanding applicants whose prior work is judged to be insufficient relative to that required for an MPA will be asked to complete additional course work. All admission decisions will be made by the Joint Doctoral Admissions Committee.

Degree Requirements: To be awarded the degree, admitted students must complete at least 69 semester hours beyond the master's degree, including 45 semester hours of approved course work and 24 hours of dissertation work after admission to candidacy. In addition, there is a residency requirement of at least 18 semester hours in three consecutive semesters of study during the first year of enrollment. A post-core evaluation and passing scores on the comprehensive examination taken after completion of the core curriculum and concentration (45 semester hours) is required before students can advance to candidacy for the Ph.D. and present a dissertation proposal. Completion of all work must be within seven years after an applicant's admission into the program.

Program of Study

The Doctor of Philosophy in Public Administration is a 69 semester hour program composed of seven required courses 21 semester hours; three courses (advisory committee) -9 semester hours; five courses (area of concentration) - 15 semester hours; Dissertation - 24 semester hours after admission to candidacy.

Core Curriculum (21 semester hours)

Advanced Quantitative Analysis
Applied Research Methods
Conceptual Foundations of Public Administration
Economic Context of Government
Legal Context of Public Administration
Advanced Organization Theory
Scope and Theory of Public Administration

Specified Courses: (9 semester hours)
In addition, students must complete at least nine hours of course work (as required by their advisory committee). Six of these hours must be in research related courses.

Areas of Concentration (15 semester hours): Each student will select one area of concentration. The specific courses in a student's concentration will be determined by consultation between the student and the advisory committee. The 15 semester hours of concentration can be earned in one of two ways: (1) The students may select their 15 semester hours from one of the following public administration concentrations currently offered: Public Policy, Human Resources Administration, Comparative Administration, or Budgeting and Public Financial Administration or (2) Students may concentrate their research in a particular area of their choice relevant to public administration, such as criminal justice, social work, etc. In such cases, students may develop an area of specialized concentration after consultation with and upon approval of the advisory committee:

Post-Core Evaluation

All students will be evaluated upon completion of the core curriculum to determine their potential for completion of the program. Comprehensive Examination: Students will be given either a written or oral examination, or both, on the non-methodological material covered in the core curriculum and area of concentration.

Dissertation (24 semester hours): Upon successful completion of the comprehensive examination, students select their dissertation guidance committee and begin preparation of their dissertation proposal. Upon approval of the proposal, the student will be advanced to candidacy for Ph.D., requiring registration for a minimum of 24 semester hours. During this time, the student is expected to make appropriate progress toward completing the dissertation, and to enroll continually (at least 3 credits per semester) until the degree is completed. Upon completion, candidates will formally defend the research at a meeting conducted by the Dissertation Committee. The degree will be awarded upon a positive recommendation of the Committee and compliance with all policies and procedures required by the institution conferring the degree.

For doctoral course descriptions, please consult the Department of Public Administration.

Course Descriptions

Definition of Prefixes

CIS—Computer and Information Systems; MAN—Management; PAD—Public Administration; PUP—Public Policy.

CGS 6301/MAN 6830 Management Information Systems (3). Introduction to the application of computers to information processing problems in organizations. This includes a survey of the basic computer hardware and software concepts necessary for users to work with information processing personnel. The rudiments of a computer programming language will be taught, and applied to data processing problems. Consideration will also be given to the managerial aspects of information systems planning and development.

PAD 3002 Introduction to Public Administration (3). The course will provide an overview of the field of public administration by focusing on its development and importance in modem government operations. The course will also review operation of government at local, state, and federal levels.

PAD 3033 Administrators and the Legislative Process (3). A study of executive-legislative interactions; the impact of legislation and legislative processes on administra:tive policy decision-making and implementation; the influence of administration on the legislating process.

PAD 3034 Public Policy and Its Administration (3). Examines the formulation, implementation, and evaluation of governmental efforts at federal, state, and local levels.

PAD 3104 Organization and Administrative Theory (3). Historical survey of theories of public organization and of contemporary and emerging theories and management issues. With special attention to the role of bureaucratic theory and behavior. Case investigation of bureaucratic experience in federal, state and local levels will be conducted.

PAD 3413 Organizational Group Processes (3). The impact of various organizational climates, tasks, roles, and reward systems, on the behavior of both the individuals and groups of employees in public organizations. Particular attention is given to alienation and motivation in job effectiveness and Public Service.

PAD 3430 Personal Growth and Administrative Development (3). The administrator as a person. Development of interpersonal skills. Self evaluation and career planning. Training and education for the public service sector.

PAD 3438 Communication Skills for Public Administrators (3). Designed to enable students to develop oral and written skills required to communicate effectively in a public organization setting.

PAD 3702 Quantitative Techniques for the Public Sector (3). Quantitative techniques useful to public administration, non-parametric techniques, probability concepts, and decision techniques are presented, as well as concepts underlying the use of data systems.

PAD 3804 Government and Administration of Metropolitan Areas (3). An intensive analysis of administrative problems in large complex urban areas encompassing many political entities. Examines overlapping relations among municipalities with special attention given to Dade County as well as current trends in public management and future directions for change.

PAD 3834 International Comparative Administration (3). This course is an introduction to a wide range of scholarly and practical 'applied' interests. Emphasis is on institution-building and development administration, particularly within the Third World countries.

PAD 4024 Concepts and Issues in Public Administration (3). The function of administrative institutions in society. The growth of administration through the bureaucratic model both as an art and a science. Contemporary and comparative forms and theories of organization. Responsibilities of public servants.

PAD 4040 Public Values, Ethics and Morality in Changing Environment (3). Theories of value: ethical systems and their influence on administration, behavior and process, the administrator as an ethical actor: value conflict and resolution; the philosophical basis of American thought.

PAD 4103 Politics of Administrative Organization (3). The role of political processes in relationship to public organizations and the types of intra- and inter-organizational politics which are unique to public organizations. Effects of these political processes upon organizational performance and their role in promoting or thwarting organizational change.

PAD 4223 Public Sector Budgeting (3). The theory and practice of various approaches to budgeting, including time-item, performance, PPBS budgeting. Special emphasis on the role of the budget in shaping the program and performance and policy direction of public organizations.

PAD 4414 Personnel Skills for Administrators (3). The general nature of public personnel administration; the development of the civil service system; concepts and issues currently applicable at the federal, state, and local levels of government.

PAD 4432 Administrative Leadership and Behavior (3). Designed to expose students to a systematically related set of concepts for diagnosing human behavior in organizations; and to establish a positive value for the analysis of problems involving people, structure, environment, task technology, and situational climate.

PAD 4603 Administrative Law (3). Surveys the principles of law from the perspective of the public administrator; administrative procedure; procedural due process; delegation of legislative power; regulatory administration; conflict-of-interest statutes, etc.

PAD 4905 Independent Study in Public Administration (1-6). Individual conferences, supervised readings; reports on personal investigations; and similar undertakings. Prerequisites: Consent of faculty sponsor and Department Director required.

PAD 4940 Public Administration Internship (3-12). Supervised work experience in a public or quasi- public organization. Involves a variety of professional and technical job duties depending on the agency. Consent of Department Director is required. Prerequisite: Completion of required courses in public administration is recommended.

PAD 5041 Values and Technology in Modern Society (3). Surveys personal and societal value assumptions in the context of the technological society. Examines organizational-societal value structures, and the ways in which technology creates rapid change and new alternatives in values. Also interrelationship of the past, present and future is explored, through futurism and forecasting techniques.

PAD 5043 Government and Minority Group Relations (3). Explores the pressing contemporary issue of the relationship between government and minorities. Examines the clash between established institutional values and minority group values, and surveys remedial programs aimed at dealing with the problem. Comparative case studies will be used to analyze public agencies' internal relations with minorities (recruiting, selection, etc.), as well as their different responses to the minority groups they serve.

PAD 5256 Economic Aspects of Government (3). Application of micro and macro economics, public finance, and economy management to administration of public institutions.

PAD 5427 Collective Bargaining in the Public Sector (3). The course deals with the nature and implications of collective bargaining for managers and employees in (and students of). public organizations. The course emphasizes similarities and differences between the private and public sectors, as they apply to collective bargaining.

PAD 5435 Administrator and the Role of Women (3). The course is designed for women and men who are interested in moving into management positions, or who have done so and want to broaden their understanding of the changing role of women. Classes will allow for experimental as well as academic exploration of the issues. The course will also explore design, implementation, and evaluation of affirmative action programs.

PAD 5443 The Public Administrator and Media Relations (3). Surveys the government-mass communication media relationship, and then concentrates on the ways in which public managers handle media relations. Emphasis throughout is placed on questions of information-handling unique to public organizations, involving, for example, adherence to Florida's Sunshine Law and the Federal Freedom of Information Act.

PAD 5934 Contemporary Issues in Public Administration (31-6). An analysis of major conceptual issues currently facing public administrators. May be repeated.

PAD 6042 Democracy and the Administrative State (3). Juxtaposes the contemporary administrative condition of American government with the values of the democratic state. Different approaches to democracy - in practice as well as in theory - will be analyzed, and their implications for public organizations and individual administrators examined.

PAD 6053 Political, Social and Economic Context of Public Administration (3). Examines the context in which public organizations operate, stressing the relationship between such organizations and their multifaceted environment. Emphasis is on examining relevant social and cultural mores and patterns, political values and processes, governmental institutions, economic systems, resource availability, and other environmental factors currently significant to public organizations.

PAD 6056 The Practice of Public Management (3). This survey course examines and integrates concepts and techniques for public managers by focusing on topics such as government structure, budgeting, productivity and ethics, and program evaluation.

PAD 6106 Organization Theory and Administrative Behavior (3). Historical perspective and philosophical foundations of contemporary and emerging organization theory and administrative behavior, with emphasis on concepts of administrative leadership, the organization's members and systems, group dynamics, socio- psychological aspects of organization and management.

PAD 6109 Organizational Development and Change (3). Contemporary approaches to improving the overall effectiveness of public organizations through the utilization of the applied behavioral sciences: personal and executive development programs, team building, action research, etc. Survey of research on the effects of organizational development programs, with special reference to public organizations.

PAD 6205 Public Financial Management (3). Capital asset administration, debt administration, revenue systems, public employee retirement programs, purchasing, inventorying, and risk management.

PAD 6224 Advanced Seminar in Public Budgeting (3). A review of the state of the art in public budgeting, emphasizing conceptual areas for significant research and appropriate methodological design for addressing them. Prerequisites: PAD 6227, PAD 6229, and PAD 6205.

PAD 6225 Comparative Public Budgeting (3). Public budgeting is a common activity in all governments and international organizations. Covers the differences in budgeting and explores patterns implicit in those differences.

PAD 6227 Public Finance and the Budgetary Process (3). Examines the theory and practice of public budgeting and its relationship to the administrative processes of control, management and planning. Special emphasis will be given to the social balance question; the kinds and scope of government expenditures; the fiscal role of government in a mixed economy; sources of revenue available to government; administrative, political and institutional aspects of the budget and the budgetary process; and problems and trends in intergovernmental financial relations.

PAD 6229 Advanced Management Techniques (3). Advanced techniques of budgeting and financial management in public agencies, including quantitative revenue and expenditure forecasting models.

PAD 6366 Policy and Program Implementation (3). This course examines and evaluates the legal, socio-political administrative factors influencing the implementation of public policy and programs. Prerequisite: PUP 6005.

PAD 6417 Public Personnel Administration (3). This course focuses on the fundamentals of public personnel administration applied to general and specific issues of civil service. Some of the specific issues which will be considered are: the merit system and civil service history and development; manpower development and training; the application of the behavioral approach in personnel administration; unique public personnel management problems; governmental unionization and collective bargaining; and future perspectives in personnel administration.

PAD 6418 Seminar in Public Personnel Management (3). This course analyzes the four key values of social equity, political responsiveness, managerial efficiency, and employee rights and their relationship to the respective mediating functions and core personnel activities. Prerequisites: PAD 6417 and PAD 6419.

PAD 6419 Seminar in Applied Public Personnel Management (3). Analysis of advanced technique for staffing, productivity improvement and cutback management; focus on problems faced by federal, state, local and non-profit agencies. Prerequisite: PAD 6417

PAD 6436 The Professional Administrator (3). Examines behavioral approaches toward understanding the personal world of public managers with emphasis on knowledge, skills, and abilities which aid effective goal accomplishment.

PAD 6437 Dynamics of Individual Growth (3). This course focuses on the importance of small group theory to the personal growth of the administrator, and the role of interpersonal abilities in effectively serving client groups. The course also deals with the expansion of the phenomenological world view of each student; and will look at existential theory and the dilemma of personal growth.

PAD 6605 Administrative Law and Procedures (3). Emphasizes the responsibilities public administrators have under local, state, and federal laws. Explores such concepts as client responsiveness under the law; the regulatory process; state administrative law systems; the executive order process; the relationship between administrative law and the checks-and-balance system; discretionary justice; and others.

PAD 6701 Quantitative Methods and Computer Skills (3). Introduction to basic quantitative tools for the analysis of problems arising in the management of organizations, and the application of these tools to real-life problems. (No credit will be given to students who have had undergraduate or graduate equivalents.)

PAD 6706 Research Methods in Complex Public Organizations (3). Theories and concepts of research and evaluation. Specific focus given to action components of the research process: design and formulation, strategies and methodological tools for conducting research. Discussion of the role of research in administrative decisions and in testing ways to implement public policy. A review of contemporary critiques on research design.

PAD 6715 Public Monitoring Systems for Government Organizations (3). Focuses on the formal information system which is or can be used to guide a public organization and judge its performance.

PAD 6807 Urban and Municipal Government Administration (3). Detailed examination of problems facing the municipal administrator; of the pressures upon the contemporary urban environment; and of the administration of large metropolitan areas comprised of numerous entities. Emphasis will be on determination of current trends, discussion of cases, and arrival at suggested solutions.

PAD 6816 Regional and State Government Administration (3). Surveys the historical development of regional administration, analyzes present administrative problems of the states, and explores contemporary and suggested remedial policies. Emphasizes the complex problems of the institutional relationships among local, state and regional governments, and their implications for public policy-making.

PAD 6836 International Public Administration (3). The role of public administration systems around the world; and the impact of political and socio- cultural frameworks on administration. Focus on national and state organizations' politics, economics, problems, and possibilities. A review of scope and programs of contemporary international public administration organizations.

PAD 6838 Development Administration (3). The role of public administration in national development, with specific attention to theories of economic aid from external sources, and the effects of this aid. Theories and policies of economic and social development are explored; and particular attention is given to the role of the United States in strengthening administrative capabilities as an important means for achieving developmental goals in selected countries.

PAD 6839 Comparative Public Policy (3). This course addresses policy formulation and implementation as a general process of administrative action that can be investigated among the varying nation-states. It covers the differences in policy and explores patterns implicit in those differences. Prerequisite: PAD 6836 or PAD 6838.

PAD 6907 Independent Study in Public Administration (1-6). Individual conferences; supervised readings; reports on personal investigations and similar undertakings. Consent of faculty sponsor and Department Director required.

PAD 6915 Independent Research in Public Administration (1-6). An individualized research project and report which, if feasible, should include field work with a public organization. Permission of a faculty advisor is required before registering for the course, which should be taken during the last half of the student's graduate program.

PAD 6946 Public Administration Internship (1-6). Supervised work in a public or quasi-public organization. Should not be undertaken until completion of required courses in public administration program. Consent of faculty advisor and Department Director required.

PAD 7026 Conceptual Foundations of Public Administration (3). This course analyzes the conceptual issues which provide the basic foundations for the field of public administration. Emphasis will be placed upon epistemological foundations and the philosophy of science and their implications for public administration as a field of study.

PAD 7055 Scope and Theory of Public Administration (3). An integrative capstone seminar in which traditional Models of Public Administration are explored and employed to analyze the structures and dynamics of public organizations and to develop alternative Models and new theoretical perspectives concerning the scope and theory of the field.

PAD 7102 Advanced Organization Theory (3). Philosophical foundations of contemporary organization theory, with emphasis on dynamic interfaces between the environmental contexts and organizations, critical analysis of both the normative and incremental orientation of concepts, theories, models, and applications. Prerequisite: PAD 6106 or equivalent.

PAD 7257 Economic Context of Government (3). This course examines interdisciplinary approaches to collective decision making and the delivery of public goods and services. Prerequisite: PAD 5256.

PAD 7607 Legal Context of Public Administration (3). This course analyzes the administrative significance of delegation, judicial review, sunshine laws, legislative veto, and liability for administrators. Prerequisite: PAD 6053.

PAD 7705 Applied Quantitative Analysis (3). Application of selected multivariative statistical and quantitative models to the field of public administration. Prerequisite: PAD 6701.

PAD 7707 Advanced Applied Research Methods (3). This course will provide students with an increased understanding of concepts of research methods through applied research projects related to public policy and public administration. Prerequisites: PAD 6701 and PAD 6706.

PAD 7980 Dissertation (3-12). This course provides dissertation guidance to doctoral candidates in the Ph.D. program in public administration. Prerequisite: Ph.D. candidacy in Public Administration.

PUP 6005 Public Policy (3). An intensive analysis of the normative theories of public policy making, with emphasis on the processes by which policy choices are made and implemented by government agencies. The current trends and perspectives of effective policy development (such as participatory democracy, multi-valued choice, rationality versus extra-rationality, policy environments, and policy roles of pro-active public administration). are examined.

PUP 6006 Public Policy Analysis and Evaluation (3). A framework for evaluating public policy- making will be presented. The emphasis will be on criteria and methodologies available for choosing among alternative courses of action. The systems approach, alternative futures, and nth-order consequences of policies will be analyzed.

Social Work

Rosa Jones, *Associate Professor and Director*
L. Yvonne Bacarisse, *Associate Professor*
Esther Blynn, *Assistant Professor*
Milan J. Dluhy, *Professor and Acting Dean*
James E. Garrett, *Associate Professor*
Mary Helen Hayden, *Assistant Professor and Director of Field Instruction*
Michael Kolevzon, *Professor*
Monte Koppel, *Professor*
Sanford Kravitz, *Distinguished Professor*
Carol Odell, *Assistant Professor and Assistant Director of Field Instruction*
Magaly Queralt, *Associate Professor*
Florence Safford, *Associate Professor*
Sue Scheiner, *Associate Professor*
Betsy Smith, *Associate Professor*
Karen Sowers-Hoag, *Assistant Professor and Coordinator Undergraduate Program*

The Department of Social Work offers graduate and undergraduate studies leading to the Master's and Bachelor's degrees in Social Work.

This profession requires a high degree of knowledge, skill, and dedication. The desire and ability to work effectively with people and to help solve social problems demands a scientific understanding of society and human behavior; skills of social work practice; and identification with values of the profession.

Degree: **Bachelor of Science in Social Work**

The program offers an integrated educational experience that combines the theoretical and the practical. It is designed to prepare the student for beginning professional practice in social work, for entrance into a graduate school of social work, and for participation in society as an informed citizen.

The four semester program includes a sequence of academic courses and field instruction under qualified supervision in social agencies in South Florida.

The program is accredited by the Council on Social Work Education.

Lower Division Preparation

The student desiring to major in Social Work must have completed the Associate of Arts degree at a Florida public community college, or equivalent work from an accredited institution.

Required Courses: Before admission to the Social Work program, the student must complete one college-level course in biology and statistics and 12 semester hours in the social behavioral sciences.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed sixty semester hours, and must be otherwise acceptable into the program.

Upper Division Program (60)

Required Courses: (45)

SOW 3113	Dynamics of Human Behavior in the Social Environment I	3
SOW 3122	Dynamics of Human Behavior in the Social Environment II	3
SOW 3232	Social Welfare Policy and Services I	3
SOW 3233	Social Welfare Policy and Services II	3
SOW 3302	Introduction to Social Work Practice	3
SOW 3313	Methods of Social Work Practice I	3
SOW 3403	Social Work Research	3
SOW 4322	Methods of Social Work Practice II	3
SOW 4332	Methods of Social Work Practice III	3
SOW 4511	Field Experience I	8
SOW 4512	Field Experience II	8
SOW 4522	Integrative Field Seminar I	1
SOW 4523	Integrative Field Seminar II	1

Electives: With approval of the faculty advisor 15

Remarks: Students should be aware that courses in this program are sequenced. Students must check with their advisors for pre- and corequisite courses. A grade of 'C' or higher in all courses required for the major is necessary for graduation. A passing grade in field courses is required for continuation in the program.

Minor in Social Welfare

A five-course minor in social welfare is available to baccalaureate degree-seeking students who are interested in careers in the human services field or who wish to study how common human needs are addressed within social welfare programs. The courses that comprise the minor will provide students with the opportunity to relate to the special concerns of our region, including poverty, crime and delinquency, child abuse and neglect, and family instability. The minor is available on both campuses.

SOW 3113	Dynamics of Human Behavior in the Social Environment I	3
SOW 3125	Dynamics of Human Behavior in the Social Environment II	3
SOW 3232	Social Welfare Policy and Services I	3
SOW 3233	Social Welfare Policy and Services II	3
SOW 3302	Introduction to Social Work Practice[1]	3
SOW 3350	Techniques of Interviewing	3
SOW 3313	Methods of Social Work Practice I	3
SOW 3703	Self-Awareness, Self-Modification, and Service	3
SOW 4193	The Systems Approach in the Social Services	3
SOW 4242	Child Welfare Policies	3
SOW 4283	Legal and Administrative Issues in Child Welfare Services	3
SOW 5621	Crises in the Lives of Women	3
SOW 4654	Child Welfare Practices	3
SOW 4658	Permanency Planning in Child Welfare Services	3

[1] This course is required for the minor in social welfare. The remaining 12 semester hours are to be selected from the social work courses listed above.

Graduate Program

Degree: **Master of Social Work**

The Department offers an integrated program which leads to the degree of Master of Social Work. The program is designed to give the student professional education for the advanced practice of social work. All students will be required to acquire or to possess the common base in the areas of professional study considered essential in social work education: human behavior and the social environment, social welfare policies and services, research, and social work practice. The theory acquired in the professional courses will be applied in supervised field experiences in social agencies.

All students will be expected to select one of two concentrations - Services to the Elderly, or Services to Children and Families, and to plan a course and field practicum program that supports practice in the specialized field. With the help of faculty, students will develop individualized programs in the concentrations that seem most likely to meet their educational needs and contribute to their professional objectives.

The Master of Social Work program is a 60 semester hour program composed of 31 semester hours of the required common base in the first year and 29 semester hours of concentration courses in the second year. The advanced standing Master of Social Work is a 39 semester hour program composed of 9 semester hours of required Summer courses and 30 semester hours of concentration courses.

For additional information regarding the graduate social work program of study and degree requirements, contact the Department directly.

The Master's program is accredited by the Council on Social Work Education.

Admission Requirements: Applicants to the graduate program are required to meet the minimum standards set forth by the Florida Board of Regents and the Graduate Social Work Program. This includes a combined score of 1000 on the Verbal and Quantitative Aptitude Tests of the Graduate Record Examination or at least a 3.0 average in all upper-level division work. Application procedure for admission to graduate study will be found in the discussion of University procedure for admission to graduate study in the current catalog. An application to the social work graduate program, a personal narrative, three letters of reference, and a personal interview will be required for admission. All applicants should have had at least one college-level course in biology and statistics and 12 semester hours in the social and behavioral sciences.

The following regulations govern transfer credits:

1. Courses taken at accredited schools of social work in admitted, MSW-degree seeking status can be transferred up to a maximum of 30 semester hours.

2. Graduate courses taken in other than accredited social work programs and that were not used to satisfy the requirements of another degree may be transferred up to a maximum of nine semester hours. 3. Students in the advanced standing program will not be awarded transfer credits.

Applicants with a B.S.W. degree from a program accredited by the Council on Social Work Education will be considered for admission to advanced standing. Advanced standing is not automatically granted. It is subject to the following additional requirements: A nine semester hour summer session, successful completion of the summer session with grades of 'B' or higher. Final admission to the second year program will be governed by successful completion of the special summer session.

All applicants must be approved for admission by the faculty of the Department of Social Work.

First Year

Required Courses: (30 semester hours)

SOW 5105	Human Behavior and the Social Environment I	3
SOW 5125	Human Behavior and the Social Environment III	2
SOW 5165	Human Behavior and the Social Environment II	2
SOW 5235	Social Welfare Policy I	2
SOW 5236	Social Welfare Policy II	2
SOW 5342	Social Work Practice I	3
SOW 5344	Social Work Practice II	3
SOW 5404	Basic Research Methodology I	3
SOW 5532	Field Practicum I	6
SOW 5542	Integrative Field Seminar I	1
Elective		3

Advanced Standing

Required Courses: (9 semester hours)

SOW 5237	Advanced Standing Social Welfare Policy and Research	4
SOW 5366	Advanced Standing Social Work Practice and Human Behavior	4
SOW 5541	Advanced Standing Practicum Seminar	1

Concentration Requirements: (30 semester hours)

Services to Children and Families

SOW 5281	Legal Issues in Social Work Practice	3
SOW 6243	Child and Family Social Policy Issues	3
SOW 6351	Intervention Strategies in Marriage and the Family	3
SOW 6372	Social Work Supervision, Consultation, and Staff Development	3
SOW 6386	Social Program Planning and Development	3
SOW 6435	Evaluative Research in Social Work I	3
SOW 6655	Advanced Intervention Strategies with Children and Adolescents	3
SOW 6535	Field Practicum	8
SOW 6543	Integrative Field Seminar II	1
Elective		6

Note: Students specializing in direct practice must take SOW 6351 and SOW 6655. Students specializing in administration and supervision must take SOW 6372 and SOW 6386.

Service to the Elderly

SOW 5281	Legal Issues in Social Work Practice	3
SOW 5643	Understanding the Process of Aging	3
SOW 6245	Social Welfare Policy and Services for the Elderly	3

SOW 6372	Social Work Supervision, and Staff Development	3
SOW 6386	Social Program Planning and Development	3
SOW 6387	Social Services Management Skills	3
SOW 6435	Evaluative Research in Social Work I	3
SOW 6646	Social Work Practice with the Elderly	3
SOW 6649	Social Work Practice in Long Term Care and the Elderly	3
SOW 6543	Integrative Field Seminar II	1
SOW 6535	Field Practicum II	8
Elective		3

Note: Students specializing in direct practice must take SOW 6646 and SOW 6649. Students specializing in administration and Supervision must take SOW 6372 and either SOW 6386 or SOW 6387. The graduate curriculum is currently under review. Students should contact the department for specific revisions.

A 'B' average is required for graduation. Any core course in which a student receives a grade lower than 'B' must be retaken. A passing grade in field courses is required for continuation in the program.

A student must successfully complete all work applicable to the Master of Social Work program within 60 months from initial admission, including two consecutive semesters of full-time study (9 semester credit hours each). In unusual circumstances, and if the reasons warrant it, a student may petition the department director for an extension of the time limit.

Course Descriptions

Definition of Prefixes
SOW—Social Work.

SOW 3113 Dynamics of Human Behavior In the Social Environment II (3). Study of bio-psycho-socio-cultural factors (including racial, ethnic, and gender variables). affecting human development and functioning in relation to social systems. Prerequisites: 12 semester hours of college-level courses in the social and behavioral sciences and on college-level course in biology.

SOW 3125 Dynamics of Human Behavior In the Social Environment I (3). Study of the life cycle and of client problems frequently encountered by social practitioners from a bio-psychological and socio-cultural perspective with attention to racial/ethnic and gender variables. Prerequisite: SOW 3113 or equivalent.

SOW 3232 Social Welfare Policy and Services I (3). This course considers the major social welfare programs in the United States: how they emerged and developed, and how they operate today. Analysis of financial resources, decision-making processes, and structure of delivery systems serves as a basis for understanding policy assessment. Corequisite: SOW 3302 or equivalent.

SOW 3233 Social Welfare Policy and Services II (3). This course considers characteristics and processes common to organizations within the social service system, and the impact of policy decisions on individuals and groups. A systems approach will be used as a basis for understanding strategies for innovation and change. Prerequisites: SOW 3232 and SOW 3302 or equivalent.

SOW 3302 Introduction to Social Work Practice (3). An overview of the profession of social work within the institution of social welfare. Historical and philosophical development, field of practice, values, and ethics.

SOW 3313 Methods of Social Work Practice I (3). An overview of social work intervention for the beginning practitioner. Generic values, attitudes and processes in client-worker relationship-building are discussed and analyzed. Authentic case material is utilized to acquaint students with assessment, modes of intervention, goal setting, and implementation. Prerequisites: SOW 3113, SOW 3232, SOW 3302, or equivalents. Corequisite: SOW 3125.

SOW 3350 Techniques of Interviewing (3). A competency-based course designed to provide students with basic interviewing skills. Emphasis is on acquisition of interview behavior rather than theory. Audio and videotaping, role-playing, simulations, and micro-counseling training methods will be utilized. Prerequisites: SOW 3113 and permission of instructor.

SOW 3403 Social Work Research (3). Introduction to the basic language, methods, and skills of scientific research for beginning social work practice. Problem formulation, literature review, definition of variables,sampling, data collection and analysis, and report writing are addressed. Prerequisite: STA 3013 or equivalent.

SOW 3703 Self-Awareness, Self-Modification, and Service (3). An experience oriented course directed toward helping students become aware of their own intrapersonal and interpersonal processes and how these may influence their skill and effectiveness as professional helping persons. Emphasis is on personal learning.

SOW 3949 Co-Operative Education-Social Work I (3). A special program permitting social work majors to work in social agencies during alternate semesters, up to a maximum of two semesters. Written reports and supervisory evaluations will be required. This experience may not be substituted for SOW 4511 or SOW 4512. Prerequisites: Three social work courses and permission of the Coordinator.

SOW 4193 The Systems Approach In the Social Services (3). This course focuses on general systems theory and its implications for social service delivery. Emphasis is on systems approach models elaborated for social service system analysis. Prerequisite: Permission of instructor.

SOW 4242 Child Welfare Policy (3). This course deals with legal principles upon which the child welfare system has been built, and the policies and issues that arise in planning services for children in their homes or substitute care, or both. Prerequisites: SOW 3113, SOW 3302 or equivalents.

SOW 4322 Methods of Social Work Practice II (3). This generic skills course is designed to provide students with the theories and techniques of social work practice as applied to small groups. Prerequisites: SOW 3125, SOW 3233, and SOW 3313, or equivalents.

SOW 4332 Methods of Social Work Practice III (3). Provides an understanding of planned change at the community level from a social work perspective, as well as strategies and methods utilized in community organization practice. Identification of generalist skills and prevalent models of community organization in social work practice. Prerequisites: SOW 4322, SOW 4511, SOW 4522. Corequisites: SOW 4512 and SOW 4523.

SOW 4511 Field Experience I (8). This is the first 315 clock hour social work practice experience in service to individuals, groups, and/or communities. Placement in an agency or institution is for the purpose of gaining a first-hand awareness of needs and behavioral responses, as well as a knowledge base of expectations, responsibilities, and activities involved in the delivery of social services. This experience facilitates the development of beginning social work skills, and a continually growing awareness of self as a helping person. Majors only. Prerequisites: SOW 3125, SOW 3233, SOW 3302, SOW 3313, and SOW 3403, or equivalents. Corequisites: SOW 4322 and SOW 4522.

SOW 4512 Field Experience II (8). This second 315 clock hour supervised social work practice experience enables the student to progress toward a higher level of awareness and understanding of needs and behavioral responses. Generic skills are applied more selectively with increasing interest and proficiency in one or more practice areas. This second placement affords the student an opportunity to become a more effective part of the social service delivery system. Majors only. Prerequisites: SOW 4511, SOW 4322, and SOW 4522. Corequisites: SOW 4332 and SOW 4523.

SOW 4514 Field Experience III (4 or 8). This third supervised social work practice experience makes it possible for students to sharpen diagnostic skills and to refine planning and implementation of appropriate helping techniques as these relate to individuals, groups, and/or communities. Majors only. Prerequisites: SOW 4332, SOW 4512, and SOW 4523, or their equivalents.

SOW 4522 Integrative Field Seminar I (1). This course is one-hour seminar, to be taken concurrently with SOW 4511 and SOW 4322, designed to analyze the field experience and integrate theory and practice. It provides an arena for students from various settings to come together in order to provide a richer understanding of social services on all levels. Majors only. Prerequisites: SOW 3125, SOW 3233, SOW 3302, SOW 3313, and SOW 3403, or equivalents. Corequisites: SOW 4322 and SOW 4511.

SOW 4523 Integrative Field Seminar II (1). This course is a one-hour seminar to be taken concurrently with SOW 4512, designed to analyze the field experience and integrate theory and practice. It provides an arena for students from various settings to come together in order to provide a richer understanding of social services on all levels. Majors only. Prerequisites: SOW 4322, SOW 4511, and SOW 4522, or equivalents. Corequisites: SOW 4332 and SOW 4512.

SOW 4654 Child Welfare Practices (3). Theories and models of intervention with children and adolescents will be examined within the context of the family. The main focus of the course will be on the special diagnostic and treatment skills necessary for the effective intervention with this client population. Prerequisites: SOW 3125 and SOW 3313 or permission of instructor.

SOW 4658 Permanency Planning in Child Welfare Services (3). Emphasis is on those practice skills needed for implementing permanent plans for children 'at-risk'. Included are intervention strategies for developing contractual arrangements insuring a child's security. Prerequisites: SOW 3125, SOW 3233, SOW 4322, SOW 4654, or permission of instructor.

SOW 4905 Individual Study (1-6). Individually selected program of supervised personal study related to specific social work issues. Prerequisite: Permission of instructor.

SOW 4949 Co-Operative Education - Social Work II (3). A continuation of SOW 3949. Prerequisites: SOW 3949 and permission of the Coordinator.

SOW 5105 Human Behavior and the Social Environment I (3). Study of individuals and families with emphasis on the analysis of bio-psycho-socio-cultural factors (including racial/ethnic and gender variables). affecting human development and social functioning through the life cycle. Prerequisites: 12 semester hours of college-level courses in the social and behavioral sciences and one college-level course in biology.

SOW 5125 Human Behavior and Social Environment III (2). Study of the psychosocial aspects of client problems frequently encountered by social workers in direct practice with attention to differential treatment issues. Prerequisite: SOW 5105.

SOW 5165 Human Behavior and the Social Environment II (2). Study of the psycho-socio-cultural dimensions of groups, organizations, and communities with attention to racial/ethnic and gender factors and with emphasis on how these systems affect and are affected by human behavior. Prerequisite: SOW 5105 or equivalent.

SOW 5217 Seminar in Social Work (3). An exploration of various critical issues of concern to the social work profession. Prerequisite: Graduate or senior standing.

SOW 5235 Social Welfare Policy I (2). A beginning study of a historical continuum of institutional mechanisms that carry out specific social welfare systems resulting from social policies developed by society in response to social problems. Power, standards, and scarcity issues are identified, while various definitions basic to the social policy field are established and clarified. Basic analytic and evaluative criteria are introduced.

SOW 5236 Social Welfare Policy II (2). A study of the present institutional response to social problems and social policy evolution. Definitions, structure, and modes of financing are considered utilizing various models. Specific delivery systems, such as health, income maintenance, housing, correction and child welfare, are explored. Evaluative criteria are further developed upon the framework used in Social Policy I. Prerequisite: SOW 5235 or equivalent.

SOW 5237 Advanced Standing Social Welfare Policy and Research (4). Integrates understanding of welfare policy issues with research knowledge and skills. Demonstrates use of social work research in social welfare policy-making and analysis of social service. Prerequisites: BSW degree from CSWE-accredited program and statistics.

SOW 5272 Social Welfare: Cross-Cultura Comparisons (3). A seminar in which students will analyze and compare social welfare policy, problems, and programs in various countries. This course is designed for seniors and graduate students. Prerequisite: SOW 3232 or SOW 5235 or permission of instructor.

SOW 5281 Legal Issues in Social Work Practice (3). This course will introduce the student to important legal aspects of social welfare policy, of social services, and of client rights. It should enable the social worker to provide knowledgeable referrals to legal services and interact effectively with courts and legal counsel. Prerequisite: Graduate or senior standing.

SOW 5342 Social Work Practice I (3). Primary focus is to introduce students to the social work profession and its practice with individuals, families, and groups. Students will have an opportunity to view social problems and social work practice within a cross-cultural, multi-ethnic perspective. Prerequisite: SOW 5105.

SOW 5344 Social Work Practice II (3). This course continues SOW 5342. It includes application of change process theories, techniques, and intervention strategies dealing with groups, organizational systems, and communities. Prerequisite: SOW 5342 or equivalent. Corequisites: SOW 5542 and SOW 5532.

SOW 5354 Crisis Intervention in Social Work Practice (3). This course examines the Etiology, structure, theory, and application of crisis intervention in Social Work practice. It provides assessment criteria for assignment to this form of treatment and techniques for intervention. Prerequisite: Senior or graduate level practice course, or permission of instructor.

SOW 5366 Advanced Standing Social Work Practice and Human Behavior (4). An examination of select theoretical approaches to social work intervention with individuals, groups, communities and organizations with attention to social structure, social systems theory and socio-cultural variations. Prerequisite: BSW degree from a CSWE-accredited program.

SOW 5404 Basic Research Methodology I (3). This course provides information on the principles and methods of basic social work research. THe ethical conduct of research is taught within the context of social work purposes and values. The formulation of problems for study that address the social needs of diverse population groups is emphasized. Prerequisite: Statistics.

SOW 5532 Field Practicum I (6). Students spend three days a week in supervised practice in a field setting in which they are expected to carry responsibilities for services to individuals, groups, and/or communities. Generic skills are applied in a range of situations in one or more practice areas. Majors only. Prerequisites: SOW 5342, SOW 5235, and SOW 5404. Corequisites: SOW 5542 and SOW 5344. Co- or Prerequisites: SOW 5165, SOW 5125.

SOW 5541 Advanced Standing Practicum Seminar (1). Using the experiences of field practica, this seminar examines current issues and values of the profession the relationship between theory and practice with a focus on the social environments in which clients function, and the implications for policy and research. Prerequisite: BSW degree from CSWE-accredited program. Corequisites: SOW 5237 and SOW 5366.

SOW 5542 Integrative Field Seminar I (1). This one-hour seminar, taken concurrently with the first field practicum (SOW 5532), requires students to analyze their field experience and integrate theory and practice. Majors only. Corequisites: SOW 5532 and SOW 5344.

SOW 5605 Medical Social Work (3). Principles of medical social work required in hospitals and community. Focus on social worker as part of health care team, with basic knowledge of medical problems of patients and their families.

SOW 5621 Crises in the Lives of Women (3). An overview of special experiences in the lives of women which might lead women to seek professional assistance. Topics include pregnancy, rape, abortion, childbirth, sex discrimination, climacteric, widowhood. Prerequisite: Senior or graduate standing.

SOW 5643 Understanding the Process of Aging (3). Study of the physical, psychosocial, and cultural factors affecting human development in late life, from a social work perspective. Prerequisite: Graduate or senior standing with permission of instructor.

SOW 5684 Professional Values in the Human Services (3). This course is designed to assist students in identification, exploration, and experiencing the values inherent in professionalism, as they are manifested in the various human service professions. Material will be presented in a didactic and experiential manner with a heavy emphasis upon student involvement in the value clarification process. Prerequisite: Graduate or senior standing.

SOW 5689 Social Work Practice with Sexual Problems (3). Skills applicable to sex-related concerns encountered in social work practice. Presents theories of the etiology of common sexual problems; explores treatment intervention modalities. Prerequisite: Graduate or senior level practice course or permission of instructor.

SOW 5845 Counseling the Elderly (3). Applied gerontological knowledge to counseling skills required for independent as well as frail elderly clients. Course focuses on long and short term interventions in a range of practice settings. Prerequisite: SOW 5643 or permission of instructor (this course cannot be used as an elective by concentrators in Services to the Elderly specializing in direct practice).

SOW 5905 Individual Study (1-3). Individually selected program of advanced supervised personal study related to specific work issues. Prerequisite: Permission of instructor.

SOW 6243 Child and Family Social Policy Issues (3). A comprehensive overview of the range of child and family policies, programs and issues in the U.S.A. in the context of alternative residual and institutional social welfare perspective of policy evolution. Prerequisite: Admission to concentration.

SOW 6245 Social Welfare Policy and Services for the Elderly (3). Analysis of welfare policies and services affecting the elderly, including study of service delivery models and program strategies. Policy formulation and service implementation methods are examined. Prerequisite: Admission to concentration. Corequisite: SOW 5643.

SOW 6247 Housing and Environmental Needs of the Elderly (3). Examination of housing and broader environmental needs of the elderly. Focus on needs for security, mobility, privacy, affiliation, and esteem. Particular attention to role of the professional social worker in meeting environmental needs. Prerequisites: SOW 5643 and SOW 6245.

SOW 6335 Community Development and Urban Practice (3). Examines planned change and community development in urban settings. The economic, communal, and familial aspects of community development are analyzed. Advanced planning skills are modeled. Prerequisite: Admission to concentration or permission of instructor.

SOW 6351 Intervention Strategies in Marriage and the Family (3). This course will provide students with an understanding of the major theories and social work intervention methods utilized in working with families. The influence of cultural/ethnic differences and how these may affect family relationships and functioning will be studied. Prerequisite: Admission to concentration.

SOW 6359 Social Work Treatment with Families of the Elderly (3). Preventive and treatment approaches in social work practice with families of the elderly. Focus on aging family as client-system; knowledge, skills needed for a range of interventions are provided. Prerequisites: SOW 5643 ,SOW 6646.

SOW 6372 Supervision, Consultation and Staff Development (3). Key aspects of the social services supervisory situation explored. Emphasizes supervisory competence, issues facing supervisor and supervisee. Also explores consultation and staff development. Prerequisite: Admission to concentration or permission of instructor.

SOW 6386 Social Program Planning and Development (3). Theory and practice of social program planning and development for organizations and communities. Social services to families, children and elderly, especially service needs for which programs do not exist. Prerequisite: Admission to concentration, or permission of instructor.

SOW 6387 Social Services Management Skills (3). Learning units in which students practice and demonstrate, through simulation and participation, skill in major aspects of social services management. Prerequisite: Adimission to concentration or permission of instructor.

SOW 6435 Evaluative Research in Social Work I (3). This course focuses on research designs for evaluating social work practice and social programs. The ethics, politics, and conduct of evaluative research are taught within the context of the purposes, values, and ethics of professional social work practices. Prerequisite: Admission to concentration, or permission of instructor.

SOW 6436 Evaluative Research in Social Work II (3). Implementation of evaluative research generated in SOW 6435. This seminar will provide field experience in data collection, analysis, and presentation of the final report of the evaluative research findings. Prerequisite: SOW 6435.

SOW 6535 Field Practicum II (8). This field practicum is a 516-clock hour educational experience in an agency setting designed to provide the student an opportunity to develop and practice social work skills in the student's area of concentration. Prerequisites: Admission to advance standing and 3 graduate courses in concentration. Corequisites: SOW 6543, and an advanced practice course in the concentration.

SOW 6543 Integrative Field Seminar II (1). This one-hour field seminar taken concurrently with the specialization field practicum in the concentration area requires students to analyze their field experience and integrate theory and practice. Prerequisites: SOW 5532 and SOW 5542. Corequisites: SOW 6535 and an advanced practice course in the concentration.

***SOW 6611 Advanced Practice with Family Systems (3).** Advanced clinical skills in working with families and couples. Focus will be given to non-traditional change strategies such as family sculpting, family reenactment, family choreography and dramatization. Prerequisite: SOW 6351 or permission of instructor.

SOW 6646 Social Work Practice with the Elderly (3). The knowledge and skills necessary for advanced social work practice in social agencies which deal with problems and issues of the aging population in contemporary society. Pre- or Corequisite: SOW 5643.

SOW 6647 Advocacy and the Elderly (3). This course covers skills and knowledge necessary for the practice of advocacy on behalf of elderly individuals and groups, including political, legislative, and organizational perspectives. Prerequisites: SOW 5643 and SOW 6245.

SOW 6649 Social Work Practice in Long Term Care and the Elderly (3). This course focuses on direct practice with the frail elderly and their families within the rapidly changing system of community and institutional long term care. Prerequisites: SOW 5643 and SOW 6646.

SOW 6655 Advanced Intervention Strategies with Children and Adolescents (3). This course will provide concentrated study and application of models of intervention necessary to develop and implement plans for children, adolescents and families within an integrative practice framework. Prerequisite: SOW 6351. Corequisites: SOW 6535 and SOW 6543.

SOW 6656 Decision-Making in Child Placement (3). This course will stress decision-making and interventions when substitute care is considered or carried out. Termination of parental rights and the choice and timing of placements of children will be considered. Prerequisite: Admission to concentration or permission of instructor.

SOW 6683 Social Work Practice with the Developmentally Disabled (3). This course provides knowledge about the potential impact of development disabilities on individuals and families. Social work interventions with interdisciplinary teams will be addressed. Prerequisite: Admission to concentration or permission of instructor.

SOW 6914 Independent Research (1-6). Individually selected program of supervised data collection and analysis. Prerequisite: SOW 3403 or SOW 5404 or permission of instructor.

Certificate Programs

Certificate in Gerontology

The objective of the certificate is to provide graduate students and qualified practitioners in the field of aging with a range of gerontological courses leading to a specialization in gerontology to supplement their chosen disciplines. Through provision of an in-depth understanding of the bio-socio-psychological nature of the aging process, and the relation of political and economic resources, the program's long range objective is to increase the knowledge and sensitivity of professionals in this area, and thereby improve the service delivery system for the increasingly large population of elderly Floridians.

Admission: Students must have a bachelor's degree and be admitted to the program by the Program Coordinator who will serve as their faculty advisor.

Program of Study: (17 semester hours)

SOW 5643	Understanding the Process of Aging	3
SOW 5905	Individual Study	2

The balance of four courses to be selected from the following electives, from a minimum of two disciplines:

Social Work

SOW 5217	Seminar: Counseling the Elderly	3
SOW 5605	Medical Social Work	3
SOW 6245	Social Welfare Policy and Services for the Elderly[1]	3
SOW 6247	Housing and the Environmental Needs of the Elderly	3
SOW 6646	Social Work Practice with the Elderly[1]	3
SOW 6647	Advocacy and the Elderly	3
SOW 6649	Social Work Practice in Long Term Care of the Elderly[1]	3

[1] Only certificate students with an MSW degree or students admitted to the Master's degree program in Social Work.

Health Services Administration

HSA 5225	Long Term Care Administration	3

Education

ADE 5195	Designing Education and HRD Programs for Disadvantaged Adults	3

Criminal Justice

CCJ 5935	Special Topics: Crime and the Elderly	3

Psychology

SOW 5405	Proseminar in Psychology of Adulthood and Aging	
DEP 6438	Gerontological Assessment	3
DEP 6465	Psychology of Culture and Aging	3
DEP 6446	Cognitive Processes of Aging	3
DEP 6477	Psychology of Social Processes in Aging	3
DEP 6937	Current Literature in the Psychology of Adulthood and Aging	3

Law and Criminal Justice Certificate

The Law and Criminal Justice academic certificate is designed to provide the legally-conscious students in various majors with concepts and information utilized by law professionals. Study shall include casework, procedures, court processes, research methods, and other introductory coursework designed to enhance careers in the legal profession.

Admissions: Students must be fully admitted to the Bachelor of Science degree in Criminal Justice or another bachelor degree program.

Certificate Award: The Certificate will be awarded upon completion of the required certificate courses and the bachelor degree requirements. The certificate will be posted on the student's transcript at the time the completion of the bachelor degree requirements is posted.

Required Criminal Justice Courses: The student shall complete a minimum of 18 semester hours of the following selected Criminal Justice courses with a minimum grade of 'C' in each course.

CCJ 3271	Criminal Procedure	3
CCJ 3290	Judicial Policy Making	3
CCJ 3291	Judicial Administration	3
CCJ 3934	Contemporary Issues in Criminal Justice	3
CCJ 4032	Crime and the Media	3
CCJ 4251	Criminal Justice and the Constitution	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4282	Legal Issues in Corrections	3
CCJ 4752	Legal Research	3
CCJ 5216	Criminal Law	3
CCJ 5235	Criminal Procedure	3
CCJ 5286	Comparative Law	3

Professional Certificate in Justice Administration and Policy Making The Professional Certificate in Justice Administration and Policy Making is designed to complement a range of professional activities, academic programs, and degrees in the field of criminal justice.

The goals of the program are to (1) stimulate interest in the study of justice administration and policy making at the graduate level, (2) to promote graduate studies with a concentration in criminal justice, and (3) to provide practitioners in the field of criminal justice with a cluster of courses leading to a specialization in criminal justice.

Admission

Applicants must have a bachelor's degree from an accredited college or university. Students must be admitted to the certificate program by the Program Coordinator, who will serve as their faculty advisor. Admission to the program does not ensure admission to the Master's degree in Criminal Justice (MSJC) degree program.

Note: Students who apply for and are admitted to the Master of Science in Criminal Justice degree program may have their Certificate courses with a grade of 'B' or better credited toward the master's degree program

Program of Study

A total of 15 successfully completed semester hours is required to complete the certificate program. Students must complete their program of study within three years from the date of admission and receive a 3.0 GPA or higher in their program of study.

Core Required Courses

CCJ 5288	Legal Issues for Criminal Justice Administrators	3
CCJ 6025	Theory in the Administration of Justice	3
CCJ 6456	Administration and Management of Criminal Justice Agencies	3
CCJ 6716	Planning and Program Evaluation	3

Optional Courses

Select one of the following courses. Substitutions may be made with the approval of the faculty advisor.

CCJ 5605	Deviance and Social Control	3
CCJ 5935	Special Topics	3
CCJ 6477	Seminar in Information Systems	3

Medical Record Coding Certificate

The purpose of the certificate is to offer an ICD-9-CM Coding program for health care personnel within the community. Study shall include basic concepts of terminology, disease processes, and patient classification systems with major emphasis on ICD-9-CM. CPT is included also.

Required Courses

Prerequisites: Anatomy and Physiology with Laboratory

HSC 3531	Medical Terminology (Must be taken first)	3

MRE 3202	Basic Coding Procedures	3
MRE 3401	Fundamentals of Medical Science I	3
MRE 4204	Advanced Coding	3
MRE 3402	Fundamentals of Medical Science II	3

Students must complete their program of study within three years from the date of admission to the certificate program and receive a 'C' or higher in each course.

Certificate in Public Budgeting and Financial Management

In an era of cutback management and fiscal restraint, an understanding of the theory and practice of public budgeting and its relationship to the administrative processes is crucial to public administration today.

This professional certificate program will be of interest to those with a career focus on public budgeting and financial management. Individuals with or without previous graduate degrees should find this program an ideal way to fully understand the budgetary process within the larger context of public administration. The coursework goes beyond the traditional areas of economic policy and taxation to examine the technical skills necessary for sound fiscal policies.

Admission: All applicants must hold a baccalaureate degree from a regionally accredited college or university. Students must be admitted to the program by the Program Coordinator, who will serve as their faculty advisor. Admission to a certificate program does not ensure admission to the master's degree in Public Administration (MPA) program.

Note: Students who apply for and are admitted to the Master of Public Administration degree program may also have Certificate courses credited toward the Track II specialization in Public Budgeting and Financial Management. However, if students have enrolled in more than one certificate program, a maximum of 15 semester hours from the certificate program may be accepted into the MPA program.

Program of Study: (15 semester hours)

PAD 5256	Economic Aspects of Government	3
PAD 6205	Public Financial Management	3
PAD 6227	Public Finance and the Budget Process	3
PAD 6229	Advanced Management Techniques	3

Optional Courses (one needed)

PAD 6225	Comparative Budgeting	3
PAD 6715	Public Monitoring	3

Students must complete their program of study within three years from the date of admittance and receive no less than a 3.0 GPA.

Certificate in Public Management

This professional certificate program will provide students with a thorough understanding of the managerial concepts and techniques of public administration designed particularly for those who already have a professional field of specialization.

Admission: All applicants must hold a baccalaureate degree from a regionally accredited college or university. Students must be admitted to the program by the Program Coordinator, who will serve as their faculty advisor. Admission to a certificate program does not ensure admission to the master's degree in Public Administration (MPA) program.

Note: Students who apply for and are admitted to the Master of Public Administration degree program may also have certificate courses credited toward the Track II specialization in Public Management. However, if students have enrolled in more than one certificate program, a maximum of 15 semester hours from the certificate program may be accepted into the MPA program.

Program of Study (15 semester hours)

PAD 6053	Political, Social, and Economic Context of PA	3
PAD 6106	Organization Theory and Administrative Behavior	3
PAD 6227	Public Finance and the Budgetary Process	3
PAD 6417	Public Personnel Administration	3

Optional Courses: (One needed)

PAD 6056	The Practice of Public Management	3
PAD 5934	Contemporary Issues in Public Administration	3

Students must complete their program of study within three years from the date of admission and receive no less than a 3.0 GPA.

Certificate in Public Personnel Management and Labor Relations Public Personnel Management and Labor Relations are one of the fastest growing fields in public administration today.

Supervisors need a knowledge of human relations to work well with employees and clients in a multi-ethnic society. Personnel managers need to know how to design and improve human resource management activities as well as how to bargain collectively and resolve grievances.

The Certificate Program goes beyond the traditional areas of interviewing, hiring, and salary schedules to explore the effective utilization of human resources in public agencies by providing both a philosophical framework and opportunities for knowledge and skills in the critical field of Personnel Management.

Admission: All applicants must hold a baccalaureate degree from an accredited college or university. Students must be admitted to the program by the Program Coordinator, who will also serve as their faculty advisor. Admission to a certificate program does not ensure admission to the master's degree in Public Administration (MPA) program.

Note: Those students who apply for and are admitted to the Master of Public Administration degree program may have Certificate courses credited toward the Track II specialization in Public Personnel Management and Labor Relations. However, if students have enrolled in more than one certificate program, a maximum of 15 semester hours from the certificate program may be accepted into MPA program.

Program of Study: (15 semester hours)

PAD 5427	Collective Bargaining in the Public Sector	3
PAD 6417	Public Personnel Administration	3
PAD 6419	Seminar in Applied Public Personnel Management	3
PAD 6437	Dynamics of Individual Growth	3

Optional Courses (one needed)

PAD 5043	Government and Minority Group Relations	3
PAD 5435	Administrator and the Role of Women	3
PAD 6109	Organizational Development and Change	3

Students must complete their program of study within three years from the date of admittance and receive no less than a 3.0 GPA.

School of Public Affairs and Services

Dean (Acting)	**Milan Dluhy**
Associate Dean (Acting)	**Thomas M. Duneye**
Associate Dean (Acting)	**Ray Surette**
Director of Budget and Resource Development (Acting)	**Carmen Mendez**
Directors of Student and Alumni Affairs (Acting)	**Jose Marques**
Coordinator for Systems Development (Acting)	**Manuel Lorenzo**
Department Directors:Criminal Justice (Acting)	**W. Clinton Terry**
Health Services Administration (Acting)	**Vandon White**
Medical Record Administration (Acting)	**Elisabeth Johnson**
Public Administration	**Ralph Lewis**
Social Work	**Rosa L. Jones**

Faculty

Bacarisse, L. Yvonne, M.S.W., L.C.S.W. *(Tulane University), Associate Professor, Social Work*

Baker, Keith, Ph.D. *(University of California), Associate Professor, Public Administration*

Blynn, Esther, M.S.W., A.C.S.W. *(Columbia University), Assistant Professor, Social Work*

Brosnan, Dolores, Ph.D. *(SUNY-Binghamton), Assistant Professor and Ph.D.Coordinator, Public Administration*

Clark, Robert S., Ph.D. *(New York University), Professor, Criminal Justice*

Cunnigham, Gerald H., M.B.A. *(University of Miami), Instructor, Health Services Administration*

Dluhy, Milan J., Ph.D. *(University of Michigan), Professor, Social Work, and Acting Dean*

Dunaye, Thomas M. Dr. P.H. *(U.C.L.A.), Professor, Health Services Administration and Acting Associate Dean*

Foster, Rosebud, Ed.D. *(University of Miami), Professor, Health Services Administration*

Frankenhoff, Charles, Ph.D. *(Georgetown University), Senior Lecturer, Health Services Administration*

Garrett, James, Ph.D, A.C.S.W. *(St. Louis University), Associate Professor, Social Work*

Hayden, Mary Helen, M.S.W., L.C.S.W. *(Florida State University), Assistant Professor and Director of Field Instruction, Social Work*

Herbert, Adam W., Ph.D. *(University of Pittsburgh), Professor, Public Administration and Vice President, North Miami Campus*

Jones, Rosa L., M.S.W., L.C.S.W. *(Florida State University), Associate Professor and Director, Social Work*

Kamons, A. Susan, Dr.P.H. *(Columbia University), Assistant Professor, Health Services Administration*

Kolevzon, Michael S., D.S.W. *(University of California, Berkeley), Professor, Social Work*

Koppel, Monte H., Ph.D., *(New School for Social Research), Professor, Social Work*

Kravitz, Sanford L., Ph.D. *(Brandeis University), Distinguished Professor, Social Work*

Lewis, Ralph G., Ed.D. *(Harvard University), Associate Professor and Director, Public Administration*

Loveless, Stephen C., Ph.D. *(Syracuse University), Assistant Professor, Public Administration*

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Mendez, Carmen, M.P.A. *(Florida International University), Instructor, Public Administration and Acting Director of Budget and Resource Development*

Meyers, Robert A., J.D. *(University of Miami), Assistant Professor, Public Administration*

Odell, Carol R., M.S.W., L.C.S.W. *(Tulane University), Assistant Professor and Assistant Director of Field Instruction, Social Work*

Park, Myung, Ph.D. *(University of Southern California), Professor, Public Administration*

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Rizzo, Ann-Marie, Ph.D. *(Syracuse University), Associate Professor, Public Administration*

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Safford, Florence, D.S.W. *(Hunter College), Associate Professor, Social Work*

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Siddharthan, Krisnasuami, Ph.D. *(Camegis-Mellon University), Assistant Professor, Health Services Administration*

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Wilbanks, William, Ph.D. *(State University of New York), Professor, Criminal Justice*

Military Programs

Aerospace Studies

Florida International University, in cooperation with the Department of Aerospace Studies, Air Force Reserve Officer's Training Corps (AFROTC), at the University of Miami, provides an opportunity for selected students to prepare for Air Force commissions while completing degree requirements. Two programs are offered:

1. The Four-Year AFROTC program is comprised of a two-year basic course in Air Force organization and the development of air power, and a two-year advanced course directed toward developing managerial skills and attitudes necessary for appointment as an Air Force officer.
2. The Two-Year AFROTC program (the last two years of the Four-Year program) is available for students in their last four semesters of college following successful completion of a six week summer Field Training course at selected Air Force bases.

In order to complete either program, all Air Force ROTC cadets must complete specified minimum requirements in English composition and mathematical reasoning.

Air Force ROTC scholarships for 2, 2-1/2, 3 and 3- 1/2 years are available to qualified cadets on a competitive basis. The engineering curriculum, coupled with the Air Force ROTC program, requires a minimum of five years to complete degree requirements. Air Force ROTC Cadets must take 16 additional hours in Aerospace studies, along with an Air Force sponsored Summer Training Camp between their sophomore and junior years in college. This allows qualified engineering students to receive four year scholarships (maximum allowed by current legislation) even though already enrolled in college. All scholarship students must obtain at least 3 hours of college level credit in an Indo-European language (unless waived) in addition to the English and math requirements listed above. Scholarships cover tuition, fees, books, and $100 per month.

Cadets earn two credits for each basic year and six credits for each advanced year. Entry into the basic course entails no military obligation; entry into the advanced course usually leads to extended active duty as an Air Force officer. Call to active duty after graduation may be delayed for selected cadets who plan to attend graduate school.

Cadets are provided with uniforms and textbooks; the cadet corps collects a small activity fee each semester from each cadet to cover corps activities.

Selection for the advanced course is highly competitive. Cadets must be citizens of the highest personal and physical qualifications, chosen for their proven ability to lead.

Applicants who are veterans or who have completed Junior ROTC, may be considered for waiver of the basic course.

Advanced course cadets are paid $100 per month for 20 months. Basic cadets attend one hour of class each week. Advanced cadets attend three hours of class each week, and all cadets are involved in one hour of leadership laboratory each week. All classes are conducted on the University of Miami campus.

AFROTC cadets may participate in orientation flights in military aircraft. Juniors or seniors selected for pilot training receive 13 hours of flight instruction at a local FAA approved flight school. For more information, call 284-2870.

Course Descriptions

Air Force ROTC

AFR 1101C First Semester Basic (1). Study of the doctrine, mission and organization of the United States Air Force; U.S. strategic offensive and defensive forces; their mission, function and employment of nuclear weapons.

AFR 1110C Second Semester Basic (1). U.S. general purpose and aerospace support forces; the mission, resources, and operation of tactical air forces, with special attention to limited warfare; review of Army, Navy, and Marine general purpose forces.

AFR 2130C Third Semester Basic (1). Changing nature of military conflict; factors leading to the development of air power; concepts and doctrine governing the employment of air power.

AFR 2131C Fourth Semester Basic (1). How technology has affected the growth and development of air power; the changing mission of the defense establishment, emphasizing the Air Force; how air power has been employed in military operations.

AFR 3220C Air Force Leadership (3). Air Force leadership in theory and practice; written and oral communications in the Air Force.

AFR 3230C Air Force Management (3). Air Force management in theory and practice; management tools, principles, problem-solving; written and oral communications in the Air Force.

AFR 4201C The Military Profession and Society (3). National security forces in contemporary American society.

AFR 4210C Formulation and Implementation of U.S. Defense Policy (3). Political, economic and social constraints on the formulation of U.S. defense policy. Technological and international impact upon the overall defense policy-making process. The military justice system.

AFR 4240 Flight Instruction Ground School (2). Fundamentals of flight; rules and regulations governing safe operation of civil aircraft.

Army ROTC Program

The Army Reserve Officers' Training Corps at Florida International University offers a four-year and a two-year Office Training Program leading to a commission as a Second Lieutenant in either the United States Army Reserve or the Regular Army. Depending on the student's academic major his/her desires and the needs of the Army, this commission may be in any one of the Army's branches.

All textbooks, uniforms and equipment are furnished. The only cost is a student activity fee of $5.00 per semester. During the two years of the Advanced Course, the student is paid $100.00 per month for up to ten months during each academic year by the U.S. Government. In addition, one-, two-, and three-year scholarships may be awarded to exceptional students. (For further information contact the Military Science Department.)

The course of instruction emphasizes theoretical and practical leadership. It is divided into Basic (MS I and MS II) and Advanced (MS III and MS IV) Courses. Admission to the Basic Course is open to full-time students who will complete the four-year program prior to their 30th birthday and who are physically qualified. Admission to the Advanced Course is competitive. The Professor of Military Science must approve all applicants. In addition, all advanced students must pass mental and physical examinations and have received credit for the Basic Course. A student who wishes to continue with post-graduate work may be deferred from call to active duty for up to four years after commissioning.

Credit for the Basic Course may be given for prior military service or for participation in three years of Junior ROTC during high school. Credit for the entire Basic Course may be received by attending a six-week Summer Camp at Fort Knox, Kentucky under the Two-Year ROTC Program. Students participating in this camp are paid approximately $540.00 plus travel costs, lodging, and food. Additionally, the Army ROTC offers voluntary activity modules to all students. These modules allow the student to receive Military Core Credit Hours (MCCH) for his/her participation. The modules offered are:

Bushmaster/Raider: Teaches small unit Ranger/Special Forces tactics, techniques, rappelling, survival, field crafts and leadership.

Expert Field Cadet: Teaches basic military skills and leadership. In addition to the above, students can receive Military Supplemental Credit Hours (MSCH) for participation in:

Rifle Marksmanship: Training and firing of the .22 caliber rifle. All students fire and are eligible to compete in intercollegiate rifle matches.

Wargaming: Teaches the evolution of warfare, strategy, tactics and logistics through the use of wargames such as Blitzkrieg and Squad Leader, as well as through the use of military miniatures and other RPG's.

Class Hours Required

First- and second-year students attend one hour of class per week. Third- and fourth-year students attend three hours per week. In addition, advanced students attend one six-week Advanced Summer Camp between his/her junior and senior years. Students will receive approximately $800.00 plus food, lodging and travel costs reimbursement for participation in this summer training. For any additional information concerning the Army ROTC Program, contact the Professor of Military Science at (305) 284-4673.

Army ROTC

MIS 1002 First Year Basic (1). An orientation of the ROTC program and its objectives; the role and organization of the Army; the fundamentals of leadership and management; leadership development.

MIS 1300 First Year Basic (1). Basic operations and tactics of Infantry and Mechanized Infantry as small unit level; military principles of war.

MIS 2106 Second Year Basic (1)
MIS 2106L Second Year Basic Laboratory (0). Basic military skills in radio communication procedures; US and opposing forces Armor and Anti-Armor capabilities; security and intelligence reporting; nuclear, biological, and chemical battlefield; US Artillery weapons; and basic first aid. Required Laboratory, Field Training, and/or Activity Module participation.

MIS 2333 Second Year Basic (1)
MIS 2333L Second Year Basic Laboratory (0) Map reading skills, determining distance, direction, and location; analysis of terrain; and indirect fires. Required Laboratory, Field Training, and/or Activity Module.

MIS 3423 Advanced Military Science III (3)
MIS 3423L Advanced Military Science III Laboratory (0). Management and leadership. Case studies in fact finding, decision making, planning, delegation, and interpersonal skills. Motivation training with emphasis on crisis-oriented organizations. Required Laboratory. Prerequisite: Permission of the PMS.

MIS 3310 Advanced Military Science III (3)
MIS 3310L Advanced Military Science III Laboratory (0). Advanced leadership and troop command procedures. Small unit tactics and communications. Map and compass skill. Patrolling, tactical operations. Required Leadership Laboratory. Prerequisite: Permission of the PMS.

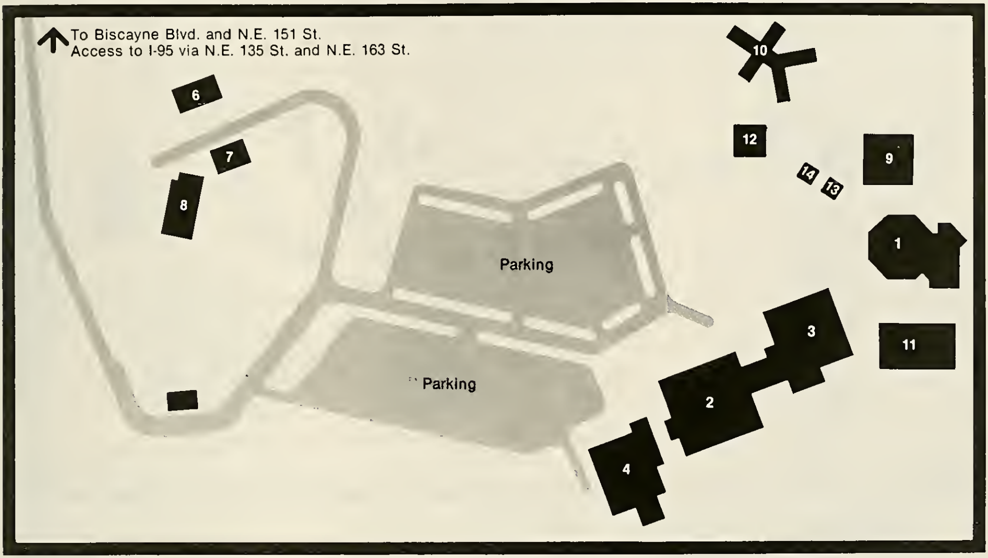
MIS 4120 Advanced Military Science IV (3). Ethics and professionalism responsibilities of the military officer. The military law and justice system. The laws of war. Prerequisite: Permission of the PMS.

MIS 4410 Advanced Military Science IV (3). The applied leadership techniques in counseling subordinates; written and oral communications; the command, staff, personnel, logistics, and training management systems; the role of NCO's.

Marine Officer Programs

Qualified students may apply for an officer program leading to a commission as a Second Lieutenant in the United States Marine Corps. Commissions are offered in both ground and aviation components. The Platoon Leaders Course (PLC) is offered to freshmen, sophomores and juniors who attend pre-commissioning training during the summer. Financial assistance and Flight Indoctrination Programs are available. Qualified seniors and twelve weeks of training in the Officer Candidate Course (OCC) after graduation. For details, contact the Career Development and Placement Office, or the Marine Officer Selection Officer when he is on campus.

FLORIDA INTERNATIONAL UNIVERSITY NORTH MIAMI CAMPUS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Access to I-95 via N.E. 135 St. and N.E. 163 St.
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Parking
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Parking
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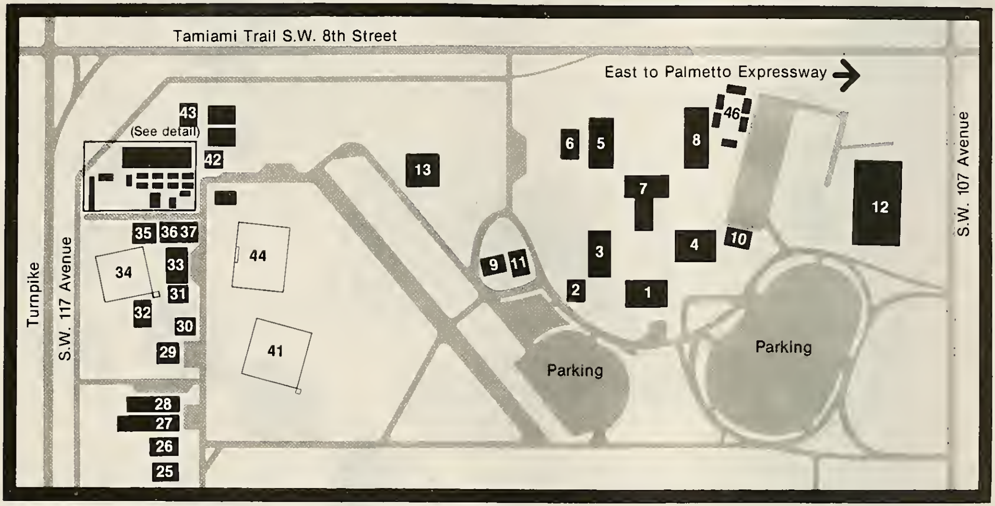
1. Trade Center (TC)
2. Academic One (AC I)
3. Student Center (SC)
4. Academic Two (AC II)
5. Information Booth
6. Central Receiving
7. Public Safety
8. Physical Plant
9. Tennis Courts
10. Dorms
11. Aquatic Center
12. Library (under construction)
13. MO1N
14. MO3N

Tamiami Campus
Tamiami Trail & S.W. 107 Ave.
Miami, Florida 33199
(305) 554-2363

Bay Vista Campus
151 St. & Biscayne Blvd.
North Miami, Florida 33181
(305) 940-5760

Broward Center
Whiddon Hall, Bldg. 9
Room 224
3501 S.W. Davie Rd.
Davie, Florida 33314
(305) 948-6747 Dade
(305) 474-1382 Broward

FLORIDA INTERNATIONAL UNIVERSITY UNIVERSITY PARK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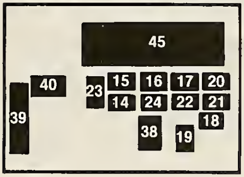
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1. Primera Casa (PC)
2. Campus Support
3. Deuxieme Maison (DM)
4. University House (UH)
5. Viertes Haus (VH)
6. Central Utilities (CU)
7. Athenaeum (AT)
8. Owa Ehan (OE)
9. Tower
10. Information Booth
11. Duplicating Center
12. Dorms
13. Sunblazer Arena
14. MO1
15. MO2
16. MO3
17. MO4
18. MO5
19. MO6
20. MO7
21. MO8
22. MO9
23. M10
24. M11N
25. WO1
26. WO1A
27. WO2
28. WO3
29. WO4
30. WO4A
31. WO5
32. WO5A
33. WO6
34. Softball Field
35. WO7
36. WO8A
37. WO8B
38. WO9
39. W10
40. W10A
41. Baseball Field
42. Handball Courts
43. Recreation Booth
44. Soccer
45. Tennis Courts
46. OET

Definition of Prefixes

ACG - Accounting: General, 145
ADE - Adult Education, 189
ADV - Advertising, 56
AFR - Aerospace Studies, 291
AMH - American History, 77
AML - American Literature, 66
ANT - Anthropology, 115
APB - Applied Biology, 45
ARA - Arabic, 89
ARC - Architecture, 217
ARE - Art Education, 190
ARH - Art History, 121
ART - Art, 122
AST - Astronomy, 100

BAN - Banking, 147
BCH - Biochemistry, 45
BCN - Building Construction, 217
BOT - Botany, 45
BSC - Biological Sciences, 46
BTE - Business Teacher Education, 190
BUL - Business Law, 148

CAP - Computer Applications, 60
CCJ - Criminal Justice, 268
CDA - Computer Design/Architecture, 226
CES - Civil Engineering Structures, 221
CGS - Computer General Studies, 60, 148, 190
CHD - Home Economics: Child Development, 190
CHI - Chinese, 89
CHM - Chemistry, 50
CHS - Chemistry: Specialized, 52
CIS - Computer Information Systems, 60
CLP - Clinical Psychology, 108
COA - Home Economics: Consumer Affairs, 191, 212
COC - Computer Concepts, 60
COP - Computer Programming, 61
COT - Computer Theory, 61
CPO - Comparative Theory, 103
CRM - Computer Resources/ Management, 62
CRW - Creative Writing, 67
CTE - Home Economics: Clothing and Textiles, 212
CYP - Community Psychology, 108

DAA - Dance Activities, 119
DEP - Developmental Psychology, 109
DIE - Dietetics, 240

EAB - Experimental Analysis of Behavior, 110
ECI - Civil Engineering, 222
ECO - Economics, 63
ECP - Economic Problems and Policy, 65
ECS - Economic Systems and Development, 191
EDA - Educational Administration, 191
EDE - Education: Elementary, 191
EDF - Education: Foundations and Policy Studies, 192
EDG - Education General, 193
EDH - Education: Higher, 194
EDP - Educational Psychology, 194
EDS - Education Supervision, 194
EEC - Education: Early Childhood, 194
EED - Education: Emotional Disorders, 195
EEL - Engineering: Electrical, 226
EES - Environmental Engineering Science, 222
EEX - Education: Exceptional Child, 195
EGC - Educational Guidance — Counseling, 196
EGI - Education: Gifted, 197
EGM - Engineering: Mechanical, 222, 231
EGN - Engineering: General, 223
EIA - Educational: Industrial Arts, 197
EIN - Engineering: Industrial, 229
ELD - Education: Specific Learning Disabilities, 197
EMA - Engineering: Materials, 232
EME - Education Technology and Media, 197
EML - Engineering: Mechanical, 226
EMR - Education: Mental Retardation, 197
ENC - English Composition, 64
ENG - English: General, 65
ENL - English Literature, 65
ENU - Engineering: Nuclear, 97
ENV - Engineering: Environmental, 218, 226
ESE - Education: Secondary, 175
ESI - Engineering Systems, Industrial, 230
EUH - European History, 77
EVR - Environmental Studies, 71
EVS - Environmental Science, 73
EVT - Education: Vocational/ Technical, 98
EXP Experimental Studies, 110

FAD - Home Economics: Family Development, 199
FIL Film, 56
FIN - Finance, 148
FLE - Foreign Language Education, 199
FOL - Foreign and Biblical Languages, 89
FOS - Food Science, 256
FOT - Foreign and Biblical Languages in Translation, 89
FOW - Foreign and Biblical Language Comparative —Literature, 89
FRE - French Language, 90
FRT - French in Translation, 90
FRW - French Literature Writing, 90
FSS - Food Service Systems, 255

GEA - Geography: Regional Areas, 81
GEB - General Business, 151
GEO - Geography: Systematic, 73, 81
GER - German, 91
GET - German Literature in Translation, 91
GEY - Gerontology, 274
GLY - Geology, 73
GRE - Classical Greek: Language Study, 98, 113

HBR - Hebrew, 91
HEE - Home Economics Education, 200
HFT - Hotel and Restaurant, 256
HIS - General History, 78
HLP - Health, Leisure, and Physical Education, 200
HME - Home Economics: Home Management and Equipment, 200
HSA - Health Services Administration, 274
HSC - Health Sciences, 275
HUN - Human Nutrition, 241
HUM - Humanity, 80

IDS - Interdisciplinary Studies, 84
IND - Interior Design, 218
INP - Industrial and Applied Psychology, 111
INR - International Relations, 81, 104
ITA - Italian Language, 91
ITT - Italian in Translation, 91

JOU - Journalism, 56
JPN - Japanese, 92

LAA - Landscape Architecture, 218
LAE - Language Arts and English Education, 200
LAH - Latin American History, 79
LEI - Leisure, 201
LIN - Linguistics, 68, 92
LIT - Literatures, 68

MAA - Mathematics: Analysis, 86
MAC - Mathematics: Calculus and Precalculus, 86
MAD - Mathematics: Discrete, 86
MAE - Mathematics Education, 201
MAN - Management, 151
MAP - Mathematics Applied, 61
MAR - Marketing, 155
MAS - Mathematics: Algebraic Structures, 86
MAT - Mathematics, 86
MCB - Microbiology, 47
MET - Meteorology, 76
MGF - Mathematics: General and Finite, 87
MHF - Mathematics, Foundations, 87
MIS - Military Science, 291
MLS - Medical Laboratory Science, 244
MMC - Mass Media Communication, 57
MRE - Medical Records, 276
MTG - Mathematics: Topology/ Geometry, 87
MUC - Music: Composition, 96
MUE - Music Education, 96, 202
MUG - Music: Conducting, 96
MUH - Music: History, 96
MUL - Music Literature, 96
MUM - Music: Commercial, 96
MUN - Music Ensembles, 97
MUS - Music, 97
MUT - Music: Theory, 97
MVB - Applied Music: Brasses, 97
MVK - Applied Music: Keyboard, 98
MVP - Applied Music: Percussion, 98

MVS - Applied Music: Strings, 98
MVV - Applied Music: Strings, 98
MVW - Applied Music: Woodwinds, 98

NUR - Nursing, Generic Undergraduate, 263

OCB - Oceanography: Biological, 47
OCC - Oceanography: Chemical, 76
OCE - Oceanography: General, 76
OCG - Oceanography: Geological, 76
OCP - Oceanography: Physical, 76
OTH - Occupational Therapy, 247

PAD - Public Administration, 280
PCB - Process Biology, 47
PEL - Physical Education Activities (General), 202
PEM - Physical Education Activities General/Performing, 202
PEN - Physical Education Activities General/Water, 203
PEO - Physical Education Activities Professional, 204
PEP - Physical Education Activities Professional/Performing, 204
PEQ - Physical Education Activities Professional/Water, 205
PET - Physical Education Theory, 205
PGY - Photography, 57, 123
PHC - Public Health, 275
PHH - Philosophy, History of, 98
PHI - Philosophy, 99, 113
PHM - Philosophy of Man and Society, 99
PHP - Philosophers and Schools, 100, 113
PHS - Physics: Specialized, 100
PHT - Physical Therapy, 251
PHY - Physics, 101
PHZ - Physics, 102
POR - Portuguese Language, 92
POS - Political Science, 105
POT - Political Theory, 106
POW - Portuguese Literature: Writings, 92
PPE - Personality, 111
PRO - Prosthetics/ Orthotics, 49
PRT - Portuguese in Translation, 92
PSY - Psychology, 111
PUP - Public Policy, 106
PUR - Public Relations, 57

QMB - Quantitative Methods in Business, 156

RED - Reading Education, 204
REE - Real Estate, 157
REL - Religion, 113
RMI - Risk Management and Insurance, 158
RTV - Radio/Television, 58
RUS - Russian Language, 92

SCE - Science Education, 205
SOP - Social Psychology, 112
SOW - Social Work, 284
SPA - Speech Pathology and Audiology, 205
SPN - Spanish Language, 92
SPS - School Psychology, 947
SPT - Spanish Literature in Translation, 94
SPW - Spanish Literature: Writings, 94
SSE - Social Studies Education, 205
SSI - Social Sciences: Interdisciplinary, 84
STA - Statistics, 118
SUR - Surveying, 224
SYA - Sociological Analysis, 116
SYD - Sociology of Demography and Area Study, 117
SYG - Sociology: General, 117
SYO - Social Organization, 117
SYP - Social Process, 117

TAX - Taxation, 159
THE - Theatre, 120
TPA - Theatre Production and Administration, 120
TPP - Theatre Performance and Performing Training, 120
TRA - Transportation, 160
TSL - Teaching English as a Second Language, 206
TTE - Transportation and Traffic Engineering, 224

WOH - World History, 78

ZOO - Zoology, 48

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